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GENERAL DON JOSE RAMON RODIL.*

From a Manuscript of the late Hon. William Tudor, U. S. Consul General for Peru, and Chargè d'Affaires at the Court of Brazil.

THE 9th of March 1826, the anniversary of our entrance into the city of Lima, was the last in which the Spanish flag floated on any territory in South America; for, though the events were without connection, the Island of Chiloe had been surrendered on the 7th of the month, and on this day the patriot troops marched into the Castles of Callao; thus Gen. Rodil can boast to his master, that he was the last to strike the royal banner in Peru.

A few days after the Castles were surrendered, passports began to be delivered without difficulty, and on Sunday, the

* NOTE BY THE EDITOR.—The prominence of General Rodil, in the recent affairs of Spain, will, it is believed, give fresh interest to the following illustrations of his character by the gifted and lamented diplomatist from whose papers they are extracted. To understand fully the political circumstances of Peru, at the time this sketch was written, it will be necessary to recollect, that the battle of Nyacucho,—"the York Town," in the language of Mr. Tudor, "of South America" had for ever terminated the dominion of Spain in the southern continent. One of the terms of the capitulation which ensued, was the agreement, on the part of the Spanish forces, to surrender the castles of Callao, the last strong-hold remaining in the hands of the Royalist. With this General Rodil refused to comply, and in consequence, underwent a protracted siege, holding out to the last extremity. The article we insert was written just after his surrender.

29th, accompanied by one or two of my countrymen, I went down to Callao, though without a passport, as a uniform button and a slight request were sufficient to pass us at the gate of Lima. The road was still solitary—except a few soldiers going up and down—but was divested of those objects which were scattered over it the last time I passed: the festering corpses of those slain, on the 12th of Nov., which the Spaniards would not allow to be buried, and which were slowly consumed by the dogs and gallinagos. Near the Agua I saw a human skeleton placed in a sitting posture, on the bank, a jacket open on which the trunk reposed, and a small wooden cross in the place of a skull—this had been a little piece of fancy work by some of the soldiers, but some days afterwards, when the road was cleared up, I remarked that it had been removed. The road presented few objects to mark the events that had been going on near it for the last fifteen months. But, in some parts, near Bella Vista, the bushes had grown up on its disused surface, and showed the power of the climate, by the strength and size they had attained in a single year. Two or three cannon balls were also lying in the path. There would have been more of these, but as the Patriot batteries were deficient in ammunition, the balls fired from the castles were all collected by the soldiers who received a reward for them. In this way some of the balls may have passed and repassed several times.

I entered the village of Bella Vista, in front of which the principal battery of the besiegers was established, and found the place a heap of ruins: nothing but the lower walls standing, and these traversed thickly by the shot from the castles, the distance being about a mile. A very few houses only, in the most distant part of the place, remained entire, and these were occupied by the hospital and the head-quarters of the army. Further on, we passed the Spanish sick, whom they were removing on litters, from the hospital of the Castles to that of Bella Vista. The emaciated, haggard forms were a harrowing spectacle—many of them were [illegible] but [illegible] body wasted to a skeleton, still showed life in the sharp, black eye turned to-

wards us as we passed, and which seemed the only spot where life remained.

About one-third the distance from Bella Vista was the advance battery of the Patriots, containing only two guns, and used principally to prevent the troops from coming without the walls and foraging their cattle as long as any remained. Callao, which contains three castles, the centre of which is called by the Spaniards, Real Felipe, is a close-built, ugly village, of 3 or 4000 people in ordinary times, including sailors, fishermen, &c. The main castle is about a mile in circumference on its walls, and of great strength. The walls are of stone, rising 40 feet from the fosse, which is kept dry and may be filled with water: the ditch is 60 or 70 feet wide, and the perpendicular wall of the glacis upwards of 30 feet. The glacis slopes very gently down to the country around, which is very low and flat as far as Bella Vista, whence it has a very gradual and regular rise all the way to Lima. The glacis thus entirely masks the walls, in which it is impossile to make a breach.

In the bay of Callao were lying, at this time, the ships of the Patriot squadron—consisting of a frigate and four or five smaller vessels—the English frigate Briton, and four or five American ships that had just returned from Panama, whither they had gone as transports to carry home some of the Columbian troops. I went on board the English frigate to call on Sir Murray Maxwell, a most worthy man, her commander, and also on Gen. Rodil, who, with two or three of his officers, was embarked on board, according to the terms of the capitulation. I had a long and lively conversation with him, and he appeared in better health and spirits than when the siege began. He said, as he drank no wine and eat sparingly at all times, that he felt the privations of the siege less. I found from him the same courteous and gentlemanly reception that he has always shown through our whole intercourse, though much of it was under very unpleasant and irritating circumstances.

General Don Jose Ramon Rodil is a man of remarkable character and talents, and, I think, will yet play a distinguished part in his own country—I hope on the side of the

liberal party. I believe he had no superior, in point of ability, in the late Spanish army. In stature he is under the middle size, of an animated and agreeable expression when pleased, but his face assumes a terrific ferocity and unyielding severity when he is otherwise. His age, I believe, does not exceed thirty-five, but fatigue and incessant anxiety and watchfulness have given him an older expression. He was bred a lawyer, but entered the army to oppose the invasion of Napoleon, and fought in many of the battles under Lord Wellington.

Holding but the rank of a brigadier-general, he belonged to the division of the Spanish army under Canterac, who was an open rival to Valdez, the commander of another division. Rodil said, that he had always refused to take any part with the factions that distracted the army, that he was more attached to Valdez than to Canterac, had never engaged in any of the rival intrigues, but went straight forward in the discharge of his duty. This conduct, however, made Canterac and his friends resolve on his ruin. When the news of the revolt in the Castles, in Feb., 1824, reached the head-quarters of Canterac, he hastily detached Monnet and Rodil to make a rapid march to the coast, and get possession of Lima and Callao, and in this expedition it was intended to get Rodil out of the way and ruin him if possible. He said that he was left two days on the road without troops, in an exposed situation, in hopes he might be captured by a band of Montanera. Escaping this, he reached Lima with the division led by Monnet, who after placing him in the Castles left him in command of the district, surrounded with difficulties which they thought would prove his destruction. This, however, was exactly a situation to show the energy of Rodil, and develop his talents and resources.

To estimate the full extent of his ability, it is necessary to consider what was the state of the district he came to command. It extended from Ica on the south to Huacho on the north, though he was not able to occupy the country beyond Chaucai, which is separated by a sandy desert of five or six leagues from the fertile valley of Haoura. This, from

the beginning of the revolution, remained in possession of the Patriots, as well as the whole coast to the northern limits of Peru. From Ica south to the deserts of Atacamas, which divide Peru from Chili, the country called on the coast the *Intermedios* was held by the Royalists, except during the short periods of invasion by the ill-fated expeditions that were sent there. The mountains approach very near the coast, and at intervals their branches project to the Pacific forming lofty points between the adjoining vallies. The Spaniards only controlled the country for a narrow range to the eastward, at most three or four leagues, to where the *quebradas*, or mountain valleys, begin to narrow, which from that point upwards was held by the Montanera of the Patriots. Rodil had, therefore, besides the capital and the castles of Callao, Chaucai and the plain, containing seven or eight large estates belonging to it; the district watered by the Chillon and the Rimac, extending four leagues north and about the same distance east of Lima; Chorillos, Lurin, Quilca, Canete, Pisco and Ica to the south. His communications with the Spanish army were by Pisco and Ica, to the former of which places he commonly forwarded his despatches by boats. This extent from north to south may be about 150 miles. The places named are spots of greater or less extent, rendered fertile, by irrigation, from the small torrents that pass through them on their descent from the Andes to the Pacific. But not more than a fourth of the territory is susceptible of cultivation, the remainder being arid deserts. The whole region had been excessively exhausted by the war—many of the estates were lying entirely waste and abandoned, and of the others but a small portion was cultivated by the few negroes that had not been taken from their masters to enter the army—the proprietors struggling under every kind of vexation and risk from the frequency of exactions by military parties, and the perpetual liability to plunder by the disorganized band of Montanera.

Public opinion in the capital was divided between the Patriot and the Spanish cause, the friends of the former being the more numerous, while the majority were indifferent to every thing but the ruin and misery in which they were involved.

When the revolution began, a vast majority of the inhabitants of Lima, hailed the Patriot cause with enthusiasm, but the profligacy, the incapacity and the avarice of St. Martin and his followers, impoverished and disgusted the whole community: and when his successors, Torre Tagle and his ministers, betrayed their trusts and matured their treachery by joining the Spaniards, all political affairs were thrown into confusion. A few of the most zealous and faithful Patriots fled, and left their families in Lima, exposed to the insults of the Spaniards. But the people generally might be said to be disaffected towards all sides—they hated and feared the Spaniards, but at the same time had felt such a disappointment of their hopes under the revolutionary government, that, without firmness or instruction enough to bear present evil for future good, their prevailing feelings were disgust and despondency, and their ruling sentiment, a hatred of the government of the day, whether Royalist or Patriot. In this state of things the officers selected to command here were, generally speaking, the most severe and ill-mannered in the Spanish army. They held no intercourse with the inhabitants, rarely entered any house as visiters, and oppressed them with the harsh restraint of a military police, which their small number rendered necessary, and in their general treatment showed nothing but hatred and contempt. This bad policy of the Spanish chiefs completely alienated the population, and these effeminate, vacillating people were driven to the Patriot side again, finding, that with all its faults and errors, it was yet more tolerable than the asperity and insolence of Spanish dospotism.

This is an imperfect sketch of the moral and physical circumstances of the extensive and important province, on whose command Rodil had entered, at an hour's warning. The whole administration, military, civil, commercial and municipal, was under his control. The most perfect tyranny existed, whose subordinate offices he delegated, at discretion. His outposts were separated from him by intervening deserts, and his troops constantly harassed and liable to be cut off, by the light troops of the Patriot forces, which

hovered around. He had to supply himself with resources, by various kinds of exaction, from an impoverished, disaffected population. His troops were made up of mutineers who had revolted from the misconduct of their chiefs, and were ready to repent their rashness, and some scores of whom he shot for so doing; and of negroes and Indians, ever prone to desert, and on a few of whom only he could place reliance—which few, united to about a hundred Spanish artillerists and cavalry, formed a small corps with which he overawed the rest. Any hesitation in his efforts, a single hour's neglect, might have exposed him to destruction. He had the most considerable port of commerce on the coast to superintend. The chief merchants were all foreigners, whom the Spaniards hate from principle and habit; and whom they here considered not only as intruders but as enemies, whose prosperity was to be erected on their ruin, which they were secretly exerting themselves to effect, by giving aid and information to the Patriots.

In all the various branches of administration he took the direction, and his resolves were no further confided to others than was necessary for their execution. His correspondence was of the most varied kind, and all by his own dictation: with the Viceroy; with the various divisions of the Spanish army; with the commanders of his outposts; and with the commanding officers and consuls of foreign nations. The thousand other letters that were necessary on different subjects, even ecclesiastical ones, all were dictated and despatched by himself. He bore all this fatigue, laboring for some time under the effects, and occasionally the attacks of fever and ague. He seldom went to Lima, and a short ride for exercise was his only excursion.

Besides the duties above mentioned, he was occupied in filling up his ranks with new recruits, many of whom, after being drilled, were sent off to the army. He established workshops for the manufacture of various military articles, especially cavalry equipments, and of these he also sent very considerable supplies to the army. He laid out a great deal of work, in repairing the castles which had been much neglected, and were beginning to decay in some parts. These

he restored to the most complete state of order, and even erected some additional buildings. He also fitted out two cruisers, brigs of sixteen and eighteen guns, which went to sea to convey despatches to various places, and which made several captures—among them were two American vessels. One of his cruisers was subsequently so much strained in chase, by the frigate United States, that her commander ran her ashore at Quilca and burnt her. After he heard of the arrival of the Asia and Achilles at Chiloe, he immediately began forming a squadron, with which he intended getting the control of this coast; and if the commander of that ship had been a man with any portion of the energy and talent of Rodil, the object would have been accomplished to the serious injury of the Patriot cause. He equipped, for this purpose, one vessel of twenty-six guns, which he called the corvette Ica, two brigs of sixteen and eighteen guns, and three transports.

The news of the Asia's arrival he knew two months before it was known generally; and, when the commander of the English squadron mentioned to him the first news of the event, he was not able or willing to affect a decent surprise at such intelligence, having in fact known it so long and made so many preparations in consequence. His activity was very great in obtaining intelligence, employing many spies and agents, and paying considerable sums for this purpose, whereby he was extremely well informed of every event.

The following anecdotes connected with Gen. Rodil, are derived from authentic sources. During the siege he remained, in the day time, under an awning on one of the towers, where he easily discerned the movements of the enemy with a glass, and was much exposed to the shot, especially from the gun-boats. Those of his officers, who partook of his fanatical hatred to the Patriots and their cause, were much attached to him, and more than once drew up a request to him, not to remain in such a conspicuous situation; but he disregarded it, and told them the balls had their destination, and he was not afraid of them. The privations, the sufferings, the dangers and the inutility of his

resistance created, however, more than one conspiracy, but his incessant vigilance detected, and his inflexible severity punished them all. On one occasion, a lieut. colonel, and four or five other officers had combined to make him a prisoner, or kill him, and surrender the castles. As their plot was drawing to the moment of its conclusion, it was disclosed to the general by, (if I recollect right,) one of the confederates. He said to the informer—"I do not believe my officers are capable of this treachery." The other told him he might convince himself by going to such a place, where he would find them assembled. Shortly after, he went thither alone — it was in an obscure part of the barracks—where he found the lieut. colonel and his companions. He asked them, with some degree of sternness, but showing no extraordinary emotion, what they were doing there? They gave some kind of excuse, that they had accidentally met near there, and had entered the room to have some conversation and pass half an hour: they did not suppose, from his manner, that he had any knowledge of their design, and thought his entry among them had been a mere chance step, in the course of that perpetual watchfulness and prying, which led him to visit every nook in the fortresses. He told them, these were no times for conversation; that every man must be incessantly on the alert; and ordered the subalterns to proceed to different stations, and took the lieut. colonel with him to his quarters. He there wrote a short letter addressed to Col. Alais, who commanded the fortress of St. Miguel, the castle on the N. E. side of Callao, and told this officer to take it thither. He went unsuspectingly. The letter contained a brief order to shoot the bearer immediately, which was complied with as soon as the soldiers could prepare themselves. When Rodil was informed of the fact, the others, who could have no opportunity to communicate with one another, were seized by his orders, and shot in the same summary manner.

Another conspiracy combined several persons in it, among them two or three young and handsome girls of a respectable family, which had emigrated to Callao, and were so driven to desperation, it was said, that one of them had

undertaken to poignard Villason, the adjutant of Rodil. This, like all the other plots, was discovered: two officers were shot, and a young man, named Izgui, imprisoned under menace of sharing the same fate. This individual was in his heart attached to the Patriot cause, and had been an officer in that service; but, when treason brought the Spaniards again to Lima, he, like too many of the Peruvians, discovered his weakness in being induced to give in his adhesion to them. His father was one of the wealthiest Spanish merchants in Lima, where he left his wife and daughter, while he, from his extreme dread of Rodil, and the confident accounts—previous to the battle of Nyacucho—which were spread of the great superiority of the Spanish force, went with his son most reluctantly to Callao. He lived through the siege, sickening at its close, and died the very day before the capitulation. His son was, then, in the prison of the castle, under sentence of death for the conspiracy. The father on his death bed requested that he might see his son for a few moments. This was refused, and he died ignorant of the approaching capitulation, and with the agony of believing that his son would be executed.

During the siege, many of the poorer class of people who had no means to purchase food were turned out; but many were either afraid to go or were not permitted, all of whom died of hunger. A woman was one day entreating, with a desperate earnestness, the officer commanding the guard at the gate, to be allowed to speak to Rodil, for that she was dying of hunger; he happened to be near, and asked the officer what she wanted—he mistook his words, and thinking the general granted the request, suffered her to pass. She tottered wildly towards him, to ask for food, but it was the last effort of nature, and fell dead at his feet, without being able to articulate her want.

Mr. M.——, a Portuguese merchant, who had acted in business transactions as an agent, and who had as much influence with him—which he often used for humane efforts—and enjoyed as much of his confidence as any individual, relates several interesting anecdotes. Two or three days before he sent a flag of truce—which he did not do till he

had only a week's rations of their diminished allowance remaining—he told this gentleman of his intentions in confidence. He observed, that he thought the Patriots would not grant a capitulation. "O yes, they will," said the General, "they are a good sort of people, more humane than persons think; but if they do not, you, the young Englishman, Spencer (a clerk of O'Brien, who had the fortitude to remain in his house to take care of his goods throughout the siege) and another individual, whose name I do not know, are safe in all events—I will send you three out of the lines. If my flag of truce is not received, I will blow up the small castle of St. Raguel, and then send out another flag—if this is refused I will blow up such a tower, and despatch a third flag—if this is refused, I will then fire all the mines and magazines, and we all go together." And to this last terrific measure, which would have destroyed 3 or 4000 persons, he unquestionably would have resorted. He had mines prepared, in various directions, for the purpose, and a sufficient stock of powder and desperate resolution to effect it. The granting the capitulation has been considered a weakness by many; but, only in that thoughtless desire of vengeance against a single individual which seeks to be gratified—those who wished this, chiefly on account of his cruelty, would thus inconsistently sacrifice thousands for its gratification.

His administration, it will be seen, was arbitary, and his measures equally prompt and peremptory; yet to foreigners, at least, they were not often unjust, and he was always master of the subject, to give legal grounds for what he did. In regard to my countrymen, I can truly say, that I found him, not only just but even generous in several cases, until the arrival of the Asia, and his irritating disputes with the frigate United States, both of which contributed to change his conduct. In the case of two vessels that were brought in, one of them was clearly unjust; and I am satisfied he meant to clear her, when the news above mentioned suddenly changed his purpose, new pretexts were found, and she was condemned, because he wanted her for a transport. After these events had taken place, having met him accidentally one day on the Mole of Callao, we had a long con-

versation; he seemed willing to give me to understand that the condemnations were not perhaps right, but that we had our resort to the King of Spain for redress—and leaving me to make the inference that the exigencies of his situation were the justification of his measures.

He told me one day, that Gen. Canterac had written to him, cautioning him to be prudent in his operations—that he would be taken in by the merchants with whom he made contracts, &c. But, assuredly, Canterac had not so much capacity in this respect as the man he was advising. Rodil was remarkably clear-sighted in every thing—in all his contracts he was peculiarly decisive, not stopping at trifles, but offering at once a fair agreement, which he generally complied with, in good faith. All those who had dealings with him, found him very well informed in the business he had to transact.

The reputation he was acquiring in the important post confided to his charge, was not agreeable to those who thought, in sending him to it, that they should involve him in difficulties in which he would commit himself inextricably. Canterac, therefore, resolved to displace him before he acquired too much influence, and despatched Gen. Loriga with secret orders to arrest Rodil, send him back to the army, and assume the command himself of the Province of Lima. Loriga came, and passed some days in observing Rodil's conduct—with this he was so well satisfied that he confided to him his mission, showed him his orders, and then told him he might judge what a set of rascals they were, and advised him to make no efforts for them, and neither send them money nor succors of any kind. Rodil was, of course, grateful for this conduct, but declared he would not alter his course, that he would do every thing to subserve the common cause, and aid them to the utmost of his power. Loriga was probably further disposed to be friendly to Rodil, because he was tired of the country, and, perhaps, despaired of final success to the Spanish arms. He also wanted to return to Spain, where he was engaged to be married. He, therefore, took passage in the English frigate Aurora, Capt Prescott, and went in her to Rio Janeiro.

This statement, which came from Rodil, is further confirmed by the circumstance that, Gen. Monnet, who was the most confidential friend of Canterac, when he came to Lima, after the battle of Nyacucho, spoke of Loriga with great acrimony, said that he had deserted the army because he foresaw events would turn out unfavorably, that he was a *picaron*, and if he met him in Europe he would call him to account.

Rodil had a rapid insight into men's characters, as well as a quick perception of all the relations of the subject he had to consider; and it was necessary that one's thoughts and words should flow fast to meet him in conversation. He had the readiness of his original profession in perceiving, at a glance, where every observation might lead, and met in the outset what might, if admitted, give a foundation for an inference against him. An instance of his quickness occurred to me in the conversation on board the Briton; I had made an observation with so little malice prepense, that I was not aware of all it might embrace, till he met it by declaring, that he was only acting as a military man, that in defending the castles he could act on no other motives. "When I was serving under Lord Wellington in Spain," said he "he used to tell us that we had nothing to do with politics or parties, that we must go straight on with our duties as soldiers and nothing else." In this way he meant to preclude the consideration of his conduct on any other ground than that of mere military routine. But the fact is that Gen. Rodil was acting also a political part, and the course he took involved questions of great importance: — his conduct therefore is not to be judged as a brigadier general placed in command of a fortress which it was his duty to defend at all hazards, to the last extremity.

After a fair, and I believe, not exaggerated statement of Rodil's merits, it is necessary, though a less pleasant task, to speak of his faults; and these, like his merits, were characteristic of his nation. His perseverance became obstinacy: while indifference to human suffering, a ferocious and sanguinary energy, and deep hatred and scorn of his enemies, gave a character of national fanaticism to the course he

pursued. The pride of a Spaniard was fretted into fury at seeing the decay of his country, and the approaching loss of the last of those immense possessions, which she had drenched in blood at their conquest, and had since held for centuries under a jealous and blighting monopoly. With all his intelligence, knowledge, and vigor he was entirely behind the spirit of the age. He would contend for a policy and a dominion suited to the period which generated it; and wholly incompatible with the character and progress of the present times. Like many of the Spanish officers, he was an enemy of the clergy, and the abuses of the Catholic system, which had produced a pretty general infidelity; yet he would not hesitate to support a sovereign who wished to restore the Inquisition, which the Quarterly Review considers a "venerable institution of the Spanish government."

The most important question relative to Gen. Rodil's conduct, is that respecting the defence of Callao. In return for the very liberal and noble terms of the capitulation of Nyacucho, it was stipulated that the castles of Callao should be surrendered, to terminate the evils of war at once. The capitulation was made by Rodil's superiors, and they, not he, were responsible for the consequences. By complying with its terms, he would have saved the lives of some thousands of unfortunate people, and secured the properties and persons of numbers who had been put in jeopardy by the course they had taken. The benefits he was to confer, were not so much on the Patriots, his enemies, as on the Royalists, his friends, and who were unexpectedly relieved from, apparently, the most irretrievable calamities, by the terms of the capitulation. But he sacrificed all by his resistance.

If he thought his honor concerned in making the defence, or if he held, as has been said, secret orders which obliged him to disregard the capitulation, still, when this was the case, would it not have been a great palliation of his conduct, if he had generously resolved to incur the danger alone, and obliged all those unfortunate people, whom he kept in entire ignorance of the state of affairs, to leave the place, carry with them their means, and make their peace

as well as they could with the Patriots? But, instead of this, he only turned out those who were wholly destitute, and kept the remainder to encounter the most desperate of all hazards, and gradually perish of hunger and despair! The courage, the resources, the energy of Rodil, may be subjects of admiration in themselves; but has not that man a very false idea of the relative value of things, and an entire forgetfulness that humanity has any rights, with whom his reputation for maintaining an absolutely useless resistance, is sufficient to balance all the misery, the torture, the crimes and the destruction it occasioned? I cannot hesitate in saying, that his conduct, in sustaining this siege, gave evidence of extraordinary talent and courage, but was UTTERLY UNJUSTIFIABLE!

ESSAY ON ASTRONOMY.

By a Member of the United States Naval Lyceum.

[*Continued.*]

"Beyond the sphere of Mars, in distant skies,
Revolves the mighty magnitude of Jove,
With kingly state, the rival of the Sun.
About him round, four planetary moons,
On earth with wonder, all night long beheld.
Moon above moon, his fair attendants dance."

THE beautiful planet JUPITER is the next in order in the Solar system; it is the largest of the planets, and nearly equal to Venus in brightness. His diameter is 91,000 miles, is distant from the Sun 494,000,000 miles, and performs his revolution round that luminary in 11 years, 314 days, 14 hours, at the rate of 30,000 miles an hour; his motion round his axis is extremely rapid, being completed in the short space of 9 hours, 56 minutes. The great magnitude of this planet, and its rapid revolution on its axis, cause the velocity of equatorial parts to be prodigiously great; not less than 26,000 miles an hour. In consequence of this rapid

motion, the difference between his equatorial and polar diameters, is much greater, in proportion, than that which has been found between the two diameters of the earth; the equatorial parts of Jupiter having a great centrifugal force. By the best measurements, the polar diameter of Jupiter is to its equatorial diameter, as 12 to 13. The axis of Jupiter is nearly perpendicular to the plane of his orbit, consequently the length of his days and nights is nearly equal, at all times, over his surface; if it were much inclined, one portion of its body would alternately be deprived of the sun's light, and have constant day for nearly the space of six years. The ascending node of Jupiter is in 8° 36′ of ♋. The sun appears to Jupiter 1-27th of the size he does to the earth; and the light and heat he derives from that source are in the same proportion. But he is in some measure compensated for this want, by the quick return of the sun, as mentioned before; and by four satellites, which move round him at different distances.

The appearance of this planet, through a telescope, opens a large field for interesting inquiry. Jupiter is surrounded by faint substances, called zones, or belts, in which so many changes appear, that they are generally supposed to be clouds floating in his atmosphere.

The belts have sometimes been observed of different breadths, and afterwards have become nearly of the same breadth. Large spots have been seen in them; and when a belt vanishes, the contiguous spots disappear with it. The number of belts are very variable, as sometimes only one, at others, eight may be perceived, which are generally parallel to one another, and also to his equator.

The time of the continuance of these belts is very uncertain; they sometimes remain unchanged for two or three months; at others, new belts have been formed in an hour or two. In some of them, large, black, permanent spots have appeared, which moved swiftly over the disc from east to west, and returned in a short time to the same place. By observations on these belts, the rotation of this planet on its axis has been determined.

M. Cassini, from a remarkable spot which he observed

in 1665, found the time of rotation to be 9 hours, 56 minutes. In October, 1691, he observed two bright spots, almost as bright as the belts; at the end of the month he saw two more, from which he found the rotation of the planet to be performed in 9 hours, 51 minutes; he also found that some spots, near the equator, revolved in 9 hours, 50 minutes, and in general, he found that the nearer the spots were to the equator, the quicker they revolved. These variations in some of the spots, and the sensible difference in the period of rotation of others, induce the opinion that they are not attached to Jupiter; but appear to be clouds which are transported by the winds with various velocities, in an extremely agitated atmosphere; but such a conclusion is, of course, involved in much uncertainty.

When Jupiter is in opposition to the sun, he is much nearer to the earth than he is a little before and after his conjunction with the sun; hence, at the time of opposition, he appears larger and more luminous than at other times; he was in this situation on the 1st of February last. When the longitude of Jupiter is less than that of the sun, he will be a morning star, and appear in the east before the sun rises; but when his longitude is greater than the sun's, he will be an evening star, and appear in the west when the sun sets.

When Galileo first applied his telescope to the observation of the heavens, the most brilliant of the planets, Venus and Jupiter, were naturally the objects of his particular attention, In Venus, he almost immediately discovered her phases. In observing Jupiter, he found in his neighborhood, some very small luminous bodies, the existence of which seemed to have some relation to him; Jupiter, having a proper motion of his own, if these bodies were fixed stars, his position with respect to them would alter from night to night; and the laws of his motion being known, the degree and manner of this alteration might be computed. On observation, however, the relative position of the planets and these bodies was found indeed to vary, but not in the manner in which it would have varied had the planet alone moved. On the contrary, the small stars were found to ac-

company him, sometimes on one side of him, sometimes on the other, but always very near him throughout the whole course of his motions. On minute observation of the motions of these bodies, they are found to revolve round Jupiter at different distances from him. They are called *satellites*, and are four in number, the orbit of each being elliptic; those of the first and second being nearly circular; those of the third and fourth have considerable eccentricity, that of the fourth being the greatest, but the eccentricity of the third varies in a remarkable manner. The squares of the periodic times are found to increase in the proportion of the cube of the major axis of the orbit, the same law as that observed by the planets in their motions round the sun.

The mean distance of the *first* or nearest satellite to Jupiter is 264 thousand miles, and it completes its mean sidereal revolution in 1 day, 18 hours, 28 minutes. The mean distance of the *second* is 421 thousand miles, and it revolves in 3 days, 13 hours, 14 minutes. The *third* at the mean distance of 671 thousand miles, in 7 days, 3 hours, 43 minutes. And the *fourth* at the mean distance of 1180 thousand miles, in 16 days, 16 hours, 32 minutes.

These satellites, revolving round the planet in phases very little different from that of the planet's motion round the sun, the planet must frequently be between some of the satellites and the sun, and some of the satellites in the same manner between the sun and the planet. The periods at which these phenomena take place may be computed, for the positions of Jupiter and the sun being known, the position of the line joining them is also known. It is found that when the satellites pass within a certain distance of this line, at a greater distance from the sun than Jupiter is, or behind Jupiter, and through his shadow, they lose their light and become invisible. We conclude, therefore, that they shine only by reflecting light from the sun, as they disappear when the light of the sun is intercepted from them. The same conclusion may be deduced from observations made when the satellites pass between Jupiter and the sun, for then a shadow may be observed on the surface of Jupiter, corresponding to the situation, and moving with the motion of

the satellite, which is evidently an opaque body, giving no light itself, and capable of intercepting that of the sun. The satellites, therefore, when they pass behind Jupiter are *eclipsed*, just as the moon is when it passes behind the earth, and they eclipse the sun to Jupiter when they pass between the planet and the sun, just as a solar eclipse on the earth is occasioned by a corresponding situation of the moon.

When the motions of Jupiter and his satellites were sufficiently ascertained, to enable astronomers to predict the periods of their eclipses, a singular irregularity was found to pervade the observations of them. They were found to occur very nearly at the times predicted, but not accurately.

Roemer, a Danish astronomer, while engaged in making observations on these satellites, in 1674, found that in eclipses they emerged from the shadow of Jupiter at certain times a few minutes later, and at others a few minutes sooner than they ought to have done, according to calculation from tables which had been previously constructed, to show the times of their revolutions, eclipses, &c., on comparing these apparent irregularities before or after the computed time, accordiug as the earth was nearer to, or farther from, Jupiter. Hence he formed the ingenious conjecture, which was soon demonstrated to be the case, that the motion of light is not instantaneous, as was then generally believed, but, that it required a certain portion of time to pass from the luminous body to the eye of the observer. According to Roemer's calculation it was about *seven minutes* in traversing the radius of the earth's orbit; but it has since been found, that when the earth is exactly between Jupiter and the sun, his satellites are eclipsed about 8 1-4 minutes sooner than the time found by calculation; but when the earth is nearly in the opposite point, these eclipses take place about 8 1-4 minutes later than that determined by computation. It is therefore concluded that light takes about 16 1-2 minutes of time to pass over a space equal to the diameter of the earth's orbit, which is about 190 millions of miles. Light, therefore, moves at the rate of 200 thousand miles in a second, which is 10,300 times faster than the earth in its orbit; a rapidity too great for the imagination to follow, or the mind to comprehend.

"With what an awful world revolving power,
Here first the unwieldy planets launch'd along
The illimitable void! There to remain
Amid the flux of many thousand years,
That oft have swept the toiling race of men,
And all their labor'd monuments away.
Firm, unremitting, matchless in their course,
To the kind temper'd change of night and day,
And of the seasons ever stealing round
Minutely faithful. Such th' all perfect hand
That pois'd, impels, and clearly rules the whole."

SATURN is the next planet in order, in the solar system, after Jupiter: he shines with a pale, feeble light, being the most remote from the Sun of any of the planets that are visible without a telescope. His diameter is 79,490 miles, his distance from the Sun 904,000,000 of miles, and he completes his revolution round the sun in 29 years, 155 days, 19 hours, at the rate of 18,000 miles in an hour. The rotation of Saturn on his axis, is performed in 10 hours 16 minutes; and the light and heat which he receives from the sun, are about one-ninetieth of that which the earth receives.

Saturn, when viewed through a good telescope, makes a more remarkable appearance than any of the other planets. This peculiar appearance was first noticed by Galileo in 1610, who thought he observed two globes on each side of Saturn; in 1612 he was surprised to find only the middle globe, but afterward he discovered again the globes on each side, and found their magnitude and form were extremely variable; sometimes they appeared round, at other times oblong, sometimes semicircular, then with horns towards the globe in the middle, and by degrees growing so long and wide, as to encompass it, as it were with an oval ring. Huygens in 1656, from the improvements he had made in grinding glasses, was able to announce the curious discovery, that these strange phenomena are produced by a large, thin *ring*, which surrounds the body of Saturn, and which is every way separated from it. This appendage to Saturn is one of the most curious astronomical phenomena with which we are acquainted. It has been supposed by some to be a bright and permanent cloud, and by others a vast number of satellites disposed in the same plane, and

which, at the immense distance of this planet from our earth, appear as a mass of light.

When the ring of Saturn is viewed through telescopes of moderate powers, it appears to be one solid plane ; but Dr. Herschel, and other astronomers, using telescopes with high magnifying eye glasses, have discovered it to be divided into two parts, forming two concentric rings, making the space between the inner and outer ring nearly three thousand miles. When we are most elevated above the plane of the ring, it appears of an oval form ; and when the plane of the ring passes through the earth, it is then invisible. The shadow of the ring is sometimes visible upon the disc of Saturn. If the plane of the ring was perpendicular to that of the earth's orbit, we should see it of a circular form, but as it is inclined to the plane of the ecliptic in an angle of 30°, we view it in an oblique position. The ring is invisible, with common telescopes, when its edge is turned towards us : but astronomers with more powerful telescopes, have seen it in every position. The ring appears the most open when the conjugate diameter is equal to half the transverse, which happens twice during the revolution of Saturn, or once in about fifteen years ; and it is closed, or invisible, at about the same interval of time. The ring was last invisible in 1833.

From observations of Dr. Herschel, on the two concentric rings surrounding the body of Saturn, it appears that the space between him and his inner ring is 35,000 miles ; the breadth of this ring, 20,000 miles ; the space between the rings, 2,900 miles ; and the breadth of the outer ring 7,200 miles. The outer diameter of the larger ring is 146,300 miles, which is nearly twenty-six times the diameter of the earth.

The body of Saturn is also surrounded by belts, similar to those of Jupiter, supposed to consist of clouds or other substances contained in his atmosphere, which arrange themselves in lines parallel to the equator, in consequence of the amazingly rapid revolution of the planet on its axis.

Saturn is better attended than Jupiter, having, besides the ring above mentioned, seven moons or satellites continually

revolving round him, on the outside of this ring, and nearly in the same plane with it. The sixth satellite was discovered by Huygens in 1655, by means of a telescope 100 feet long; and the third, fourth, fifth, and seventh at different times by Cassini, between 1671 and 1684, by the help of glasses of 100 and 136 feet: the first and second were discovered by Herschel, with his 40 feet reflecting telescope, in 1787 and 1788. These satellites, except the sixth, require a very good telescope to render them visible. On this account they have been much less attended to than the satellites of Jupiter. The first, or nearest satellite to Saturn, completes its mean sidereal revolution in 22 hours, 37 minutes, 23 seconds, at the distance of 120,000 miles; and the seventh, or farthest, in 79 days, 7 hours, 54 minutes, 37 seconds, at the distance of 2,298,000 miles. Dr. Herschel has discovered that the seventh satellite revolves on its axis, as our moon does, in the same time it revolves in its orbit: a very remarkable as well as curious coincidence in the motions of the secondaries to two different, and very distant, primaries. And it is probably a general law of nature, that all secondary planets constantly present the *same face* towards their primaries.

"Last, Herschel walks his frontier round
The boundary of worlds; with his pale moons
Faint glimmering through the darkness night has thrown,
Deep dyed and dead; o'er this chill globe, forlorn,
An endless desert, where extreme of cold,
Eternal sits, as in his native seat,
On wintry hills, of never-thawing ice;
Such Herschel's earth!" ——

HERSCHEL, the most remote planet yet discovered in the solar system, performs its sidereal revolution in 83 years, 150 days, 18 hours, at the mean distance of 1,822,500,000 miles from the sun; its diameter is nearly 35,000 miles, about 4 1-2 times greater than that of the earth: the inclination of its orbit to the plane of the ecliptic is about 46′; and the time of rotation on his axis, or the length of his day, has not yet been ascertained.

This planet had escaped the observation of ancient astronomers, its distance from the earth being so great, that it

cannot be seen by the naked eye, except when the atmosphere is very clear, and then it may be perceived, by a good eye, like a star of the sixth magnitude, of a bluish-white color; but it cannot be readily distinguished from a fixed star with a telescope of a less magnifying power than 200.

This planet was discovered by Dr. Herschel at Bath, on the 13th of March, 1781, the existence of which was partly anticipated before its discovery by Drs. Halley, Bradley, and others, who observed that Saturn was disturbed in his motions by some force, which they concluded must originate beyond his orbit, as they could not account for it on the known principles of gravitation. This planet is placed at so great a distance from the sun, that it can receive but a very small portion of his light, which is about 1-360th part of that which the earth receives: however, this want is in some measure supplied by six satellites that revolve round it, all of which were discovered by Dr. Herschel, two of them in 1787, and the other four in 1790, and 1794. The first of these satellites completes its sidereal revolution in 5 days 21 hours, 25 minutes, at the distance of 224,000 miles from Herschel; and the sixth in 107 days, 16 hours, 40 minutes, at the distance of 1,556,000 miles. It is supposed, by astronomers, that all these satellites move round the planet in a retrograde order, and that their orbits are nearly in the same plane, almost perpendicular to the ecliptic, but this retrograde motion is doubtless an optical illusion, arising from the difficulty of ascertaining which part of the orbit inclines to the earth, and which declines from it.

Masses so stupendous as the planets, and situated at distances so immense, would lead us to infer, that each of them is, like our earth, clothed with vegetables and peopled with animals. This gives us an idea of the extent and grandeur of creation, and consequently of the power and majesty of the Creator, which we cannot acquire by any thing merely terrestrial. And it is by those views that the science of astronomy rises so much in grandeur above every other science, and inspires feelings of devotion and reverence for the Deity, which cannot be excited by any other object that can occupy the human powers. In other studies, we may

be puzzled, but here we are overcome by amazement, and forced to exclaim with the poet,

"An undevout astronomer is mad."

"Lo! from the dread immensity of space,
Returning with accelerated course,
The rushing *Comet* to the Sun descends;
And as he sinks below the shading earth,
With awful train projected o'er the heavens,
The guilty nations tremble."

Of all celestial bodies, COMETS have given rise to the greatest number of speculations. In former ages they were, and by many at the present time, they are believed to be the harbingers of divine vengeance, and to portend great political and physical convulsions. Respecting the nature of these singular and extraordinary bodies, philosophers and astronomers, in all ages and countries, have been very much divided in their opinions. The Chaldeans, who were eminent for their astronomical researches, were of opinion, that comets were lasting bodies, which had stated revolutions similar to the planets, but that they moved in orbits considerably more extensive, on which account they are only visible while near the earth, but disappear when they ascend into the higher regions. Pythagoras taught, that comets were wandering stars, disappearing in the superior parts of their orbits, and becoming visible only in the lower parts of them. Some of the ancient philosophers supposed they were nothing else but a reflection of the beams from the sun or moon, and generated as a rainbow: others supposed they arose from vapors and exhalations. The illustrious Aristotle was of opinion they were meteors. Modern philosophers have been equally perplexed as their predecessors, in accounting for the nature of these magnificent celestial appearances. James Bernouilli, a celebrated Swiss astronomer, formed a rational conjecture relative to comets, in viewing them as the satellites of some very distant planets, invisible on the earth on account of its distance, as were also the satellites, unless when in a certain part of their course. Tycho

Brahe, the illustrious but unfortunate Danish philosopher, supported a true hypothesis on this subject, he said, that a comet had no sensible diurnal parallax, and therefore was not only far above the regions of our atmosphere, but much higher than the moon; that few have come so near the earth as to have any diurnal parallax, yet all comets have an annual parallax; the revolution of the earth in its orbit causes their apparent motion to be very different from what it would be, if viewed from the sun, which demonstrates, that they are much nearer than the fixed stars, which have no such parallax. Many absurd opinions have been given to account for the appearance of these celestial visiters, but it is deemed unnecessary to introduce them in this essay. Yet many of the ancients entertained opinions respecting comets, agreeing with some parts of the modern hypothesis respecting them; for they believed that they were so far of the nature of planets, that they had their periodical times of appearing, and that when they were out of sight, they were carried aloft to an immense distance from the earth, but again became visible when they descended into the lower regions of the air, being then nearer to us. Modern astronomers are now generally agreed that they have no light of their own, and appear luminous only by the light of the sun. They have no visible disc, and shine with a pale, whitish light, accompanied with long, transparent trains or tails, proceeding from that side which is turned away from the sun. When a comet is viewed through a good telescope, it appears like a mass of vapors surrounding a dark nucleus of different degrees of opacity, in different comets. As these bodies approach the sun, their light becomes more brilliant, and after they pass their perihelion, often exceed any of the planets in lustre. From a number of observations made by Sir Isaac Newton, on the comet that appeared in the year 1680, he was enabled to discover the true motion of these bodies.

Dr. Halley, following the theory of Newton, collected all the observations which had been made on comets, and calculated the elements of twenty-four of them. By computations founded on these elements, he concluded, that the

comet of 1682 was the same that had appeared in 1456, 1531 and 1607; that it had a period of 75 or 76 years; and he ventured to predict, that it would appear again about the year 1758, which it actually did; it also appeared in 1835, as was expected.

When a comet makes its appearance, it is only for a very short period, seldom exceeding a few months, and sometimes only a few weeks. Instead of moving from west to east, like the planets, in orbits making small angles with the ecliptic, they are observed to cross it at all angles. Their progress among the fixed stars is in general more rapid than that of the planets, and their change of apparent magnitude is much more remarkable. When a comet approaches the sun, its tail is observed to increase in length and brightness, but when it retires from it, it decreases and resumes nearly its first appearance. Those comets which never approach very near the sun, have nothing but a coma or nebulosity round them during the whole time of their continuance in view.

The tail of a comet is always transparent, for the stars are often distinctly visible through it, and it has even been said, that sometimes they have been seen through the nucleus or head. The length and form of the tail vary much. Sometimes it extends only a few degrees, at others it extends more than 90 degrees. In the great comet that appeared in the year 1680, the tail subtended an angle of 70°, and the tail of the one which appeared in 1618, an angle of 104°. The tail sometimes consists of diverging streams of light; that of the comet of 1744 consisted of six, all proceeding from the head, and all a little curved in the same direction. The tail of the beautiful comet of 1811 was composed of two diverging beams of faint light, slightly colored, which made an angle of 15° or 20°, and sometimes much more; both of them were a little bent outward, and the space between them was comparatively obscure.

The magnitude of comets has been observed to be very different; many of them, without their *coma*, have appeared no larger than a star of the first magnitude, but some authors have given us accounts of others which appeared much

larger; such was the one that appeared in the time of the Emperor Nero, which, as Seneca relates, was not less, in apparent magnitude, than the sun. The comet which Hevelius observed in 1652, did not seem to be less than the moon, though it was deficient in splendor, for it had a pale, dim light, and appeared with dismal aspect. Most comets have a dense and dark atmosphere surrounding their bodies, which weakens the sun's rays that fall upon them; but within appears the nucleus, or solid body, of the comet, which, when the sky is clear, will often give a more splendid light.

From the beginning of the Christian era to the present time, there has appeared not less than five hundred comets; but the elements of not more than one hundred have been computed, twenty-two of which passed between the Sun and Mercury in their perihelia; forty between Mercury and Venus; seventeen between Venus and the Earth; sixteen between the Earth and Mars; and five between Mars and Jupiter.

The motion of a comet, like that of a planet, is accelerated when moving from its aphelion to its perihelion, and retarded from perihelion to aphelion. On account of the great eccentricity of a comet's orbit, its motion in the perihelion is so prodigiously swift as to exceed all human comprehension, and in the aphelion proportionably slow. According to Sir Isaac Newton, the velocity of the comet of 1680, which came nearest to the Sun of any upon record, was 880,000 miles an hour, but it has since been ascertained that its velocity was not less than 1,240,108 miles an hour. Its perihelion distance from the centre of the Sun was 572,809 miles, and its aphelion distance was not less than 12,000,000,000 miles.

Recently, two comets have been identified as having performed several revolutions about the sun, which were observed and recorded in preceding revolutions, without the knowledge of this remarkable peculiarity; they have already had their returns predicted several times, and have appeared accordingly. The first of these is the comet of *Encke*, so called from Professor Encke, of Berlin, who first ascertained its periodical return. It revolves in an ellipse of great ec-

centricity, making an angle of about 13°, 22′, with the plane of the ecliptic, and in the short period of about 3 1-3 years. This remarkable discovery was made on the occasion of its fourth recorded appearance, in 1819. From the ellipse then calculated by Encke, its return in 1822 was predicted by him, and observed by M. Rumker in New South Wales, being invisible in the northern regions; since which it has been seen in 1825, 1828, 1832, and 1835. Its next return will be in 1838.

The other comet of short period which has lately been discovered, is that of *Biela*, so named from M. Biela, of Josephstadt, who first arrived at this interesting conclusion. This comet appeared in 1789, 1795, &c.; its last appearance was in 1832, and the next will be in 1838. It describes its moderately eccentric ellipse about the sun in 6 3-4 years.

The comet of 1811 was the most beautiful that has been seen for many years, and was extremely interesting, not only from its appearance, but from the length of time it remained visible, which was longer than almost any other upon record, and, therefore, none has afforded such certain means of information with respect to its orbit. When this comet was in perihelion, its distance from the sun was 97,129,000 miles, and from the earth 114,000,000 miles.

Having thus given as comprehensive an account of the *Solar System* as a periodical will admit, it is proposed to treat on the *Sidereal System* in the next number.

(To be continued.)

CHARACTER AND DUTIES OF THE NAVAL PROFESSION.

By a correspondent of the U. S. Naval Lyceum.

A CONSIDERATION of the various qualifications necessary to complete the character of the naval commander, while it raises the dignity of the profession, should incite the young officer to that unwearied industry and exertion, by which

alone they can be attained. To be a worthy member of an honorable profession is a just claim to respect, but the very honor of the profession creates the disgrace of him who is unworthy of it. By seeking and obtaining a place of trust and distinction, the incumbent voluntarily assumes a responsibility he can by no means escape. He has made an election of the standard by which he will be judged, and must abide the decision of his fellows, and of the world. The trial inevitably proceeds. He must prepare to meet it; and should remember, that, to an honorable mind, a mere acquittal is equivalent to condemnation. An appellant must command the praise of his judges. The award should be, not that he has escaped reproach, but that he has merited honor.

The process of that education by which the young midshipman—more child, at his entrance into the service, than man—is fitted for the high and ultimate station of his ambition, is slow; so slow that, probably, the members of no profession, except that of the army, have so much time to look about them, to choose, with the calmness and deliberation of self study, the peculiar paths they are best fitted to pursue, to fix their principles of action, to arrange and confirm their ideas of discipline and government, to ascertain the bent of their genius, and to enrich their minds with that varied knowledge, practical and theoretical, which they are hereafter to employ. This gradual advancement is their security against error. It affords time for the maturity of crude opinions, for the correction of mistaken theories, for comparison, and, more than all, for self-knowledge—the great and only safeguard against unsuccessful exertions and broken enterprises. Age and reflection, observations upon the virtues of one commander, and the vices of another, and an every-day increasing perception of the demands and nature of professional duty, bring with them a serious sense of responsibility, and give to a mind which is progressive a steady purpose of thought and action. The materials of knowledge are gradually acquired. The naval profession is eminently a practical one. Every day may bestow some new experience or suggestion. Every watch and evolution may give hints for improvement, or lead to useful inquiry. It is the mind ever

open to these occasional acquisitions—fertile in expedients, ready in emergencies, and abundant in resources—that possesses *judgment*, the highest form of practical wisdom.

But, although the profession is eminently practical, it is not exclusively so. It embraces important studies, some of which are indispensable to the conduct of a single ship: as navigation, a certain amount of astronomy, and gunnery. Others to the command of a fleet, and the officers connected with it: as naval tactics, international law, and an intimate acquaintance with the principles that regulate intercourse with foreign governments. Others, again, that appertain to all situations, and without which no officer can be accounted accomplished: as naval architecture, the science of forces applied to the marine, mechanics, surveying, electricity, magnetism, and the use of the instruments belonging to these different branches of science. There are few of the natural sciences that do not find some place in the profession, adorning it, and rendering it useful to society, by contributing something out of its numerous opportunities to the cause of learning and science—whilst no extent of reading can be too great for him who visits every quarter of the globe, wields a great physical and moral power, deals with the elements in their wrath, controls, for a time, the life and happiness of great numbers of his fellow-men, and represents to every nation of the earth the honor, interests, and character of his beloved country.

We have been led into this train of reflection by the perusal of an eulogy upon a distinguished admiral of the reign of Louis the fourteenth, and we shall borrow from it some suggestions in pursuing a brief inquiry into the character and duties of the naval profession. Within the limited space alotted to us in this journal, this inquiry will, of necessity, be unequal to the subject. We do not, therefore, undertake to present anything novel; but, perhaps, it is not over estimating our labors to presume, that they may tend to some good with those who are ready to avail themselves of every occasion to reflect upon, and comprehend the scope and tenor of their professional obligations.

The business of the sailor stands apart from that of all

other classes of society. Originally placed upon the land, man seems, in assuming the empire of the sea, almost to have transcended the limits of his first destiny. If we discern, in the discoveries that have given safety to navigation, the smiles of Providence upon the eager and all-grasping curiosity, and the boundless activity of the human mind, we also learn from the early history of the art—in the timid practice of coasting, the exaggerated misrepresentations of the terrors thus encountered, in Scylla and Charybdis, in the stories of sea-monsters, and in the sacrifices offered for the preservation of the adventurous mariner—the strangeness and inaptitude of man to this new-tried element. Upon the sea he must, indeed, be instructed in another mode of existence. The firm-set soil deserts him, and he rests upon a basis ever in motion, and never the same. He finds himself amidst the roar of the winds and thunder, and amidst the lightning's play, unsheltered, without a refuge or retreat. Ignorant and unskilled, he might, in his terror, well imagine that the angels and "ministers of grace," losing their office of protection on the deep, had left him a prey to the oceanic furies, whose kingdom he had invaded, and whose wrath, in his folly, he had braved. But, it is with these wild agents that the sailor must hold constant intelligence, that he may know their force and direction, so as to increase or diminish, at pleasure, their application, produce from the same causes opposite results, appropriate to his own uses their very fickleness, and subject both the winds and waves to his service.

Together with this intelligence, the noble art of seamanship demands in the sailor the minute and perfect knowledge of the floating tenement to be guided and controlled by him. It requires in him a thorough acquaintance with the form, proportions, strength, capacity, and other qualities of his ship; her rate of going under every variety of circumstances; the mode of treatment best adapted to her model; and her "behavior" in all situations. This last familiar and personal term, as applied by the sailor to his ship, intimates more fully than any other, perhaps, "*the thing of life*," which she becomes under the control which this knowledge enables him to exercise over her—a control which, in

one skilled in its use, may, for power and rapidity, be well assimilated to that which the soul exercises over the body. It is by this knowledge that he regulates every operation and manœuvre, in which his ship alone is concerned.

The winds, also, are an important object of the seaman's study. He cannot sail his vessel with security unless he be well informed of their character in the different regions through which he is to pass; how far their influence extends; what is their range and ordinary direction, corresponding to season, climate, and locality; what their probable force, that he may be equally prepared for the hurricane, or for the steady breeze, to which he may carry his lightest canvass through the unguarded night, without a fear; what their probable duration, that he may be able to estimate, in a degree, the distance they will accompany him; and, finally, what others will, with certainty, or the most likelihood, succeed them, in order that he may, by his course, economize, if necessary, the wind he has, or make it free and fair to his port of destination.

The "unintelligible sea" itself becomes the subject of the seaman's most anxious care and observation. He lives in a floating citadel, that is continually battered by its waves, whose action constitutes one of his greatest dangers. Their force is sometimes terrific. He only who has seen the deck swept by them in a gale, can know their power. When driven to the last resort of scudding before them, there is something of the fury of relentless persecution in the rapidity and violence with which they follow after. The greatest velocity of the ship hardly weakens the force of their impulsion. Their march is onward, sure, and majestic; and while their glittering crests are broken by contact with the hull, their foam seems the expression of the rage with which they howl around their victim. The action of these waves, in its manifold details, must be perfectly understood by the seaman.

The sea has also its tides; their times must be known to him. Its surface is moved by an endless variety of currents, depending upon winds, temperature, form of land, rivers, &c., all of which must enter into his computation to ensure prosperity to his voyage.

But this acquaintance with the qualities of his vessel, the variety of the winds, and the action of the sea, constitutes the elements only of the sailor's knowledge. From their combination results his skill. He balances one against the other, and harmonizes their common effect. If the sea runs high, he keeps his ship steady by means of the wind. If the wind rages, he avoids injury by the position of his ship, and the proper proportion and adjustment of sail. If the sea and wind are both stormy, he uses the latter to lessen the violence of the former—all with a wise regard to the properties of his vessel.

But, it is in manœuvering that the seaman displays his profoundest skill and nicest discrimination—disposing, according to their exact value, in contributing to his object, the various means and forces he employs. In the execution of the numerous operations which are embraced in the technical expression, "working ship," the vessel may be considered as divided into four parts—the head-sails, the after-sails, the sails on the main-mast, and the rudder. These are the four particular springs, or sources of power, whose movements the seaman controls according to his will and object. He knows their influence when acting together and when separated, and applies this knowledge with precision. He decomposes their forces, and unites them again at pleasure. He distributes them in the most advantageous manner—produces, by the position of the rudder, its greatest possible effect, disposes the yards in the most ready and useful way to increase or relax the speed, to shape his course direct or oblique, to make the same wind serve for opposite courses, to arrest, at a word, his progress when under full sail, by the equilibrium of contending forces—and turns the vessel in every direction by means of the sails, the rudder, the wind and sea. He also sees intuitively the velocity, space, and duration of every evolution, what may retard or accelerate it, as well as the just moment for its performance.

Of these evolutions, some that are undertaken with previous preparation, such as veering, bringing to, bearing up to scud in a heavy sea, and under the shortest sail, club-hauling, &c., are always attended with a certain degree of peril, and

demand the most scrupulous care, and the highest practical attainment. Others that are the results of sudden emergencies, such as extricating the ship, when, scudding in a gale, she broaches to, or brings by the lee, or when she is struck by a severe squall under an overloaded press of canvas, are still more perilous, and require perfect presence of mind, and quickness and fullness of resources. It is then that the mind of the seaman seems to spread itself over the ship, and infuse into the moving mass its own animation. A first-class frigate, whose immense weight measures about 3,000 tons, acknowledges subjection to his slightest wish. The winds and the seas roar in furious contention, and out of their very strife, it may be said without a figure, by opposing one to the other, he derives his security. His ship seems to feel the danger, and brace herself to meet it. Between her and himself there is communion. She buffets the waves as if she knew them for her enemies. When laying to, she climbs up the mountains of the ocean with victorious buoyancy, and sinks into its valleys in reposing security. In the evenness, regularity, and measured dignity of her motion, there is an intelligence, a strength, and a consciousness of her task. But when she is scudding before the gale, and running from the chase of the high seas, she appears imbued with the instinct of a wild joy, and careers proudly upon the touch of the spurring wave, like the bounding steed under the loosened rein of his master. And, although the seaman "mount up to the heavens, and go down again to the depths, yet is his heart *not* melted because of trouble." Such is the fitness of the models, and the skill of the seamanship of the present day.

As the art comprises the nice adjustment of the numerous parts of a great whole, according to the relative worth and the intended effect, instantaneous and just perceptions of time, space, &c., the quick discernment and immediate appropriation of occasions, and the application of power in the most serviceable manner, and to the safest extent, it consequently admits of the finest displays of judgment. This applies to the ordinary and every-day occurrences of tacking, veering, boxing off, heaving to, &c., as well as to those most import-

ant evolutions we have already mentioned. And, in the trimming of the sails—not only in presenting their surface with the most favorable angle to the wind, but in giving to the yards and masts the best support, and in producing that equilibrium of the canvas, which, as it dispenses with the action of the rudder, or rather reduces that action to its minimum, ensures to the ship her greatest velocity and tractability—skill and experience find a constant exercise.

Before leaving this portion of the subject, it is worth while to take a glance at the seaman of the man-of-war, in his pride of place, originating the multiplied and complicated movements that are going on around him. In an elevated situation, with the trumpet in hand, his will alone is the source of action to all. On board of a first-class frigate, the eyes of five hundred men and officers are turned upon him; their minds wait his direction; their thoughts know no present bent but of his giving. And the ship, that vast machine which familiar use has rendered a play thing, as it were, in his hands, is the obedient vassal of his passing breath. He is in possession, comparatively, of unlimited power; and, confident of skill and dexterity in its application, he exults in triumph over each opposing difficulty. He contends with the elements, and subdues them; and may say to himself every moment—this I foresaw, and provided against—here my care and skill have screened me from danger. What wonder, then, that a bold spirit should take pride in being the sailor?

But, in the term seamanship, in its most general sense, is included the art of navigation: an equal requisite to the safe conduct of a vessel across the ocean. The character and variety of the winds, the set and strength of currents, the force of the waves in delaying, or accelerating, the speed of the vessel, all of which we have before noticed, enter largely a ndimportantly into the reckonings of navigation. A habit of correctly estimating the allowances to be made for these causes, can only be obtained by long experience. Under this head, however, more particularly come that learning and practice, through which is found out the place of the ship on the globe by means of the heavenly bodies, and also

the use of the mariner's compass. The navigator knows none but ideal localities; to the uneducated eye the sea and the sky are every where the same, and yet he turns the corners of the earth, to speak familiarly, as if they were under his organic vision. The labor of scientific men has simplified the art of navigation to such an extent, as to render the practice of it, in some measure, mechanical. Inspection supplies the place of calculation. The simple processes of addition and substraction, by means of logarithms, evolve the grandest results. Chronometers, and the nautical almanac, to facility, add exemption from error. And the navigator, after an absence of one hundred days from all land, sails boldly up to his destined port in the dark night, and assures himself, by the sight of a light-house, or the report of an evening gun, of his well-computed position. Still, notwithstanding the abbreviations of science, no intelligent navigator contents himself with a blind obedience to narrow rules, that may desert or mislead him, in novel cases and in emergencies. He learns the theory of that art by which he measures his path across the unwritten ocean. He studies the chart of the heavens, the motions of the heavenly bodies, and the astronomical system of their development and connection, and the dependency of navigation on them. He learns the theory of those plans, and the principles of those calculations, whose daily and hourly employment by him consists in the simple use of simple figures. To this study belong astronomy, geometry, trigonometry, and pure mathematics. They enable him to read the stars to a wise purpose, for by their assistance their language becomes intelligible to him. He makes himself familiar with their risings and settings, and with those functions and qualities which are the properties of their existence, or with which human learning has invested them. He knows their times and places, and with regard to their laws, he entertains a glad conviction of that immutability which is their nature and his reliance. The sun is his beacon, and the lesser stars his watchlights, and he rejoices in their faithful and unchangeable presence.

The compass—the mariner's staff which sustains him when he walks forth upon the waters—demands his thorough in-

vestigation. He inquires into its local and general variations, and obviates their effects; and discovers the best mode of increasing, retaining, or restoring its virtue. Such studies as these raise the dignity of the seaman. He ceases to be the mere practical mechanic, and identifies himself with the progress of science, and the advancement of his race. He exalts his mind by extending its comprehension, by a view of the grandeur and marvelousness of nature, by a participation in her mysteries, and by an intercourse with intelligences that will survive her decay.

Geography, too—not that which consists in a mere summary of relative localities, though this is essential, but that which embraces the marked features of different places in form, anchorage, winds, climate, &c.—belongs so obviously to the calling of the seaman, that it is unnecessary to dwell upon its importance.

Hitherto those parts only of the naval profession have been considered which it shares in common with the mercantile service. But it has its own peculiar and distinct offices, to which it owes its separate consequence and honor. These grow out of the character of the vessel the naval officer commands, and the nature of his duties. And, first, with regard to the character of the vessel, it will be readily understood that the construction, equipment, and internal arrangement of a man-of-war, require a knowledge altogether different from that which fits a merchant-ship for her voyage. The object of a trader is peaceful commerce, that of an armed ship the protection of that commerce, and war. Accordingly, the whole art of gunnery appertains to the naval profession, and upon the officer's skill in it depends the utility and efficiency of his ship. A merchant vessel, conducted with the greatest economy consistent with safety, is only provided with sufficient men to manage the sails. The man-of-war is a nation in miniature; a kingdom, with its head, established ranks, and commonalty. Accordingly, government, discipline, a system of police, characterize the peopled world of a man-of-war. This portion of his arduous task no officer should undertake but with a most serious sense of its responsibility. According to the trust of power is the sin

and hazard of its abuse; and, in the navy, that trust is, in some respects, almost unlimited. He who accepts it thoughtlessly, or exercises it carelessly, may have much to answer for. But he who, inflated with a blind self-adoration, makes it the pander to lawless caprice, will fall under the baneful curse of tyranny and oppression.

In the management of so many men, in so small a space, as are found in a public vessel, system and consistency, which imply patience and self-control, are the great elements of success. A strict, immediate, and momentary accountability appears also to be a necessary principle. Those forms of severity, too, that address themselves to the sentiment of fear, must supply, to the meaner sort of minds, the motive to obedience and exertion. All human legislation, as well as divine precept, teach us that this passion, equally universal with love, is not to be neglected. But a benevolent and reflecting officer will make it his last, rather than his first resort. He will see and profit by the perception, that he possesses two most available means of management—respect and emulation. Respect for the superior in education, rank, and condition; and individual emulation, which may be heightened into an honorable ambition to excel. He will, by a liberal grant of all possible indulgences, and a careful regard for the comfort of his men, devote himself to making them happy in their station—for out of a contented spirit comes a cheerful subordination. He will guard them from those ignorances and negligences that may constantly arise from his inattention to his own duty. He will treat them with respect, and thereby inspire them with self-respect. He will raise the standard of rewards and punishments, by attaching great importance to every act of praise or censure. He will establish rewards for good behavior, and, in addition to a privation of them, will create penalties for neglect, and thus multiply the steps to harshness and extreme severity. He will observe the individual characters and dispositions of his men, and base his intercourse with them upon this observation, and by so doing will save himself endless misconceptions and violations of justice. He will bring to his labor an ardent desire to do right, a proper respect for our common nature, under every garb, and

in every situation, a modest idea of his own consequence, and an exalted sense of his great moral responsibility. Thus he will not rush headlong into that cursing and whipping madness, which some weak and miserable minds have mistaken for greatness—with all the silly vanity of the frog, and more than his animal debasement, sucking in the breath of their causeless conceit until they are swelled to bursting—but he will obtain the love of his crew, his fellow-men, who are under his charge, perform his honest duty, and escape that pity, abhorrence, and contempt, which, plant-like, are bred naturally from the rank soil that covers the grave of the military Martinel.

In this partial enumeration of what, it is thought, should be the leading principles to regulate the discipline of a man-of-war, is altogether omitted the countless details which involve their application. The subject is much too complex to be crowded into the conclusion of an article; and in this rapid survey of the naval profession, details have been intentionally avoided. Another occasion, it is hoped, will occur to give this subject that deliberate and minute examination which is its due.

The nature of the public duties of the naval officer give to the profession its highest claim to respect and consideration. He is to be regarded abroad as the protector of his fellow-citizens, and the guardian of their rights and property. Upon his own station, he is, with the exception of the civil representative of the country, the most distinguished American citizen. To him are referred applications for assistance, disputed claims, controversies, questions of foreign interference and aggression, whilst, at the same time, he wields a physical power that enables him to carry his will and judgment into execution. He lives and acts for others, and not for himself. His deeds and decisions have a public importance, and may affect the rights and interests of many. Thus he has it in his power to perform beneficial services, or to inflict serious injuries. In order to avoid the latter, it is necessary that he should enrich his mind with much legal and general knowledge. This is an imperative obligation. The vulgar notion, that education and nautical skill are incom-

patible, which has even been broached in our young navy by illiterate people unworthily promoted to responsible stations, has now few supporters, and is every day being refuted by honorable examples. Collingwood and Exmouth have not been less admired for their general attainments, than for their seamanship and courage. Neither of the latter qualities, useful as they are in their place, help their possessor to discover the proper time and mode of action, to settle questions of national law, or to reconcile conflicting opinions. The rum old commodore has passed out of vogue, and in his place a well-educated and accomplished gentleman is looked for—one who can associate with those of equivalent rank in civil life on equal terms. To refer back to the subject of discipline, there can be no doubt that ignorance is the main cause of all the wrongs done to seamen, in the mode of their government. It cannot be reasonably expected that the mind unenlightened by study and reflection, should be capable of dispensing justice, of exercising absolute authority, and of correcting the errors and prejudices into which we are perpetually betrayed by the "imperfection hereditary ours." Young officers ought to be cautioned against entertaining the idea that veering ship, in a gale of wind, and fighting are the acmè of the profession. The former is a subordinate qualification—seamanship is a means, and not an end —and the latter, though a sine quâ non, is not the sole requisite even to the leader of a forlorn hope. The aim of a higher, worthier, and more liberal destiny should be presented; one that unites itself with the happiness and interests of many, and the good of the country, to the exclusion of an ambition that is narrow and self-seeking. A commanding officer has an unavoidable responsibility, which he can never lay aside. His example, as the chief of a large community, influences those around him, his opinions are apt to govern their conduct, his acts become their precedents, and his judgments may be converted into their wisdom or folly. Let him be aware of this, and bear it constantly in mind; for though he may slight the duty, he cannot escape the account.

As a member of a court martial, and the judge of his bro-

thers in the service, a naval officer has a high charge entrusted to him, which he is bound, by a love of truth and justice, to prepare himself to fulfill.

As a commanding general in time of war, and the keeper of his country's honor, he ought to be endowed with the highest qualities that adorn our nature—courage, generosity, fortitude, and wisdom.

As a diplomatist, he may be called upon to assist in the arrangement, confirmation, or execution of treaties, and to act in a civil capacity altogether beyond the limits of his strict professional path. He can never wholly divest himself of this diplomatic relation to the foreign governments near which he is stationed. But the degree and importance of this relation must depend upon his information and talent. Without merit he cannot look for the confidence of his own government. Without capacity, that confidence, if reposed, would be betrayed. As the selection for these employments is an honor, the officer should be incited, not only by laudable ambition, but by the hope of being serviceable to his country, to fit himself for accepting and performing well these arduous and deeply responsible duties.

And lastly, the naval officer should recollect, that under all circumstances and in all situations, he is a representative of his country, and affords to foreigners, in his own person, a standard of national character. The uniform that he wears points him out as a citizen of the United States, and invites observation upon his appearance and behavior. It is not asserting too much to say, that he, even in the humblest grades, is always, in foreign ports, exercising an influence upon the general opinion concerning his countrymen. No distinction is made between an officer and citizen. Profession is not taken into account. The officer is universally known and recognized—whilst, at the same time, the citizen may pass in the crowd unnoticed. National, as well as sectional prejudices, frequently have no broader basis than the conduct of a class, and, though open to conviction of error, possess incalculable weight.

It is gratifying to think that, in this respect, the officers of our little navy have not much to regret. They yield to

those of no other service in respectability of appearance, bearing, and character. Among so great a number, there may be exceptions in men who merely live to eat and drink, as if existence presented no better objects; whose highest praise is that they are not drunkards, and whose only ambition is to escape the discipline that would deprive them of an insulted commission. The larger the number of these, the greater the task, and the greater should be the ambition of the honorable members of the corps to sustain the reputation of the service, both at home and abroad.

The view that we have taken, in the foregoing pages, of the character and duties of the naval profession, cursory as it is, will suffice to suggest their importance and variety. It is not a calling in which to earn money, but honor. Its ends are not private and peculiar, but broad and general. Its limit is the good of the country that gave us birth. Its demands are uninterrupted and insatiable—its defeat, death—and its success, glory. Let not those who enter it think "to cozen fortune, and be honorable without the stamp of merit,"—bearing undeserved dignities through the right of promotion by seniority—but rather, taking to themselves the high standard of a Collingwood, an Exmouth, a Decatur, a Perry, and a hundred others, let them aspire to achieve their own fame by promoting the welfare and glory of their country.

REMARKS ON THE SUPPOSED CONNEXION OF THE GULF STREAM WITH OPPOSITE CURRENTS, ON THE COAST OF THE UNITED STATES.

By William C. Redfield, corresponding member of the U. S. Naval Lyceum.

It appears from numerous observations which are recorded in the American Coast Pilot, that immediately contiguous to the borders of the Gulf Stream on the North American coast, a moderate current is generally found setting to the southward and westward, or in the direction which is opposite to the stream, and parallel to the general line of coast. By a natural and familiar association, this current is generally styled *an eddy current;* but we shall probably find, on more particular inquiry, that it has little or no claim to this character. An eddy, as is well known, is usually caused by some fixed obstacle opposed to a stream, and is strictly local, and nearly circular in its action. Moreover, it derives its waters directly from the parent stream, and necessarily partakes of the same temperature. I must, therefore, dissent from the views of those persons who refer this current to the eddying action of the Gulf Stream for the following reasons:—

1. Because this current, in open sea, no where assumes the *form* of an eddy, but, when unobstructed by violent winds, maintains its course towards the southwest, on a line which is parallel to the general direction of the coast.

2. Because, on the outward edge of the Gulf Stream at least, there are no obstacles presented which could divert the progress of that portion of the stream, and circumscribe the same in eddies.

3. Because, if this current was derived from the Gulf Stream, it must necessarily partake of its temperature; but the sudden reduction of temperature on leaving the margin of the stream is most remarkable, and is almost unparalleled except in the immediate vicinity of ice.

We shall in vain attempt to explain this extraordinary change of temperature by the proximity of shallows or sound-

ings, for this cannot avail if the water itself be derived from the gulf current, to say nothing here of the general unsoundness of this explanation.

I have long since become satisfied that the current in question is neither more nor less than a direct continuation of the polar or Labrador current, which bears to the southward the great stream of drift ice from Davis' strait, and which, in its progress to the lower latitudes, is kept in constant proximity to the American coast by the dynamical law or influence which, in the northern hemisphere, causes all currents which pass in a southerly direction to incline towards the west, in consequence of the increasing rotative velocity of the earth's crust in the opposite direction, as in the case of the trade-winds in the lower latitudes.

In collating the observations of various navigators which have been published, we find reason to conclude that, in ordinary states of weather, this current may be traced from the coast of Newfoundland to Cape Hatteras, and perhaps to Florida, the reflux influence which follows a violent gale being of but short duration.

According to this view of the case, the Gulf Stream, in its course from Florida to the Bank of Newfoundland, is for the most part imbedded or stratified upon a current which is setting in the opposite direction in its progress from the polar regions. The impulses by which these diverse currents are maintained being, however, as permanent and unchanging as the diurnal rotation of our planet, their opposite courses on this coast while in contact with each other, are no more surprising or inexplicable than the case of two opposite currents of atmosphere, and the latter are often known to maintain opposite courses for a long period, and at high velocities, while thus superimposed one upon the other.

From the fact that these great currents have their origin, one in the tropical and the other in the polar seas, their presence can be unfailingly identified by means of the thermometer; and with the aid of good chronometers their position and extent may be determined with greater certainty than has yet been done, particularly in the latitudes between Nantucket and Florida. In this department of hydrology, every

navigator may contribute something of value to his profession and to science, for which no other qualifications are required than frequent observations, and proper attention to the ship's place. It is desirable, therefore, that every ship-master who traverses this region should make and record his observations hourly upon these currents.

The drift ice from the polar basin is always found in the western portion of the North Atlantic Ocean, notwithstanding the influence of violent westerly winds. A writer in the London Nautical Magazine* supposes that a portion of the polar current which bears the ice along the eastern edge of the Grand Bank into the Atlantic, there becomes exhausted, or joins the Florida stream. And in the Encyclopedia of Geography,† it is stated that the waters in the Northern Ocean, in the space comprised between Greenland and the coasts of Britain and Norway, and between Labrador and Spitzbergen, are supposed to perform a perpetual circuit; and that, being returned to Newfoundland, they recommence their revolution.

It is doubtless true that the great stream of ice is brought by the Labrador current within the dissolving influence of the Gulf Stream; and I may here remark that it is not improbable that the Grand Bank owes its origin to the depositesites which have resulted from this process during a long course of ages. But the polar current probably "joins" the Florida stream in no other manner than by passing underneath the same, or yielding it a passage upon its bosom, the order of superposition being mainly determined by the great diversity of temperature. The icebergs being thus carried southward by the deeper polar current, even after the latter has lost its influence at the surface, their dissolution is speedily effected by the tepid water of the Gulf Stream, and we are thus relieved from these dangerous obstructions, which would otherwise be found in lower latitudes of the Atlantic. These two streams of current, therefore, neither meet nor coalesce

* Nautical Magazine for March, 1837, p. 139. In this article it is stated that between 42° and 43° west, is the farthest easterly position in which floating masses of ice have usually been found.

† Phil. Edition I, p. 196.

in any proper sense; but like other currents, both atmospheric and aqueous, pursue each its determinate course, the Gulf Stream being thrown eastward by the greater rotative velocity which it acquires in latitudes nearer the equator; and the polar current being thrown westward along the shoals and soundings of the American continent and its contiguous ocean depths, by the more tardy rotation which it derived in higher latitudes.

The writer in the Nautical Magazine above alluded to, supposes the natural course of the polar current from Davis' Strait to be towards the coast of Morocco, in North Africa; but a little attention to the effect of the earth's rotation on this current, will show that both it and the ice-drifts which are borne on its surface, must tend westwardly as above described, in despite of the powerful westerly gales which prevail in these latitudes. Light articles, however, such as bottles which are set afloat to determine the drift of currents, will not only yield greatly to the influence of these winds, but on falling into the surface current of the Gulf Stream will of course accompany this current in its progress towards the coasts of Europe, where a leading branch of this stream is found sweeping along the coast of Norway towards the recesses of the Polar Sea, and which appears to be ultimately resolved into the Labrador current. The southeasterly branch of the stream, on leaving the Grand Bank, assumes the shorter and more direct circuit of gravitation by the coast of North Africa to the tropical latitudes, from whence it again merges in the Florida stream. It is by this system of compensation, aided by various subordinate gyrations, such for instance as Rennell's current, that the great mechanical system of oceanic circulation is apparently maintained, and which may be supposed to have a powerful influence upon the climate of Western Europe. Were the influence of winds wholly unfelt upon the ocean, it is probable that the same system would continue to be maintained, in all its essential features, by the mechanical influences of the earth's rotation, combined with an unstable state of equilibrium. The energy of this rotative influence, by which the earth is flattened about twenty-seven miles in its polar

diameter, and the depressive force of which, in each polar basin, is equal to that of a column of mercury more than five thousand feet in height, is at least sufficient to maintain the existing movements and mechanical relations of the terrestrial fluids, under the various and continued oscillations to which these fluids are necessarily subjected.

One fact, too important to be omitted here, will serve to demonstrate the course and identity of the great ice-current for more than half the distance from Cape Race in Newfoundland to the coast of Massachusetts. On the 7th of July, 1836, H. M. packet Express passed between two large ice islands to the southward of Nova Scotia, in lat. 43° 13′ N. lon. 61° 17′ W., temperature of the water 42 degrees, depth 45 fathoms; the most western of these icebergs being in lat. 43° 09′ lon. 61° 26′, or about 75 miles southwesterly from Sable Island.

From the temperature of the sea upon the North American banks and soundings, and in some other positions which are deemed analogous, it has been assumed that the mean temperature of the sea is lower on shoals than in deep water, but it seems difficult to account for such a result, unless upon the ground already mentioned. It has, indeed, been ascribed to radiation from the bottom; and again, it has been denied that radiation from a non-luminous body can be carried on freely through the water, and as the colder particles have no tendency to rise towards the surface, it does not appear how the supposed reduction in the temperature of the bottom can materially affect a current of fifty or twenty fathoms in depth, which is derived from a foreign source; for on none of these shoals or soundings, is the water permanently quiescent. Were it otherwise, we might reasonably expect a diminution of temperature on shoals in winter, and an increase in summer, with a permanent increase if in tropical latitudes. I am informed by George W. Blunt, Esq., who has made a course of regular thermometrical observations while crossing the Atlantic, that on entering upon soundings in the English Channel, he has found an increase of temperature in the water of 2° Farenheit. Those who differ from our views in regard to these currents, ought, therefore, to propose some

hypothesis which will account for the extraordinary low temperature of the waters which lave the Atlantic coast of the United States. Were these waters derived as an eddy current from the Gulf Stream, it is probable that they would no longer serve for the myriads of codfish which now frequent our shores, and which appear to inhabit the coldest waters.

Many experiments upon the drift of currents have been made with bottles containing memorandums of the date and locality in which they were committed to the sea. These experiments are not without their value, although it is obvious that a circuitous course is liable to be construed into a direct one, and that violent winds may greatly affect the course of such objects upon the surface of the ocean, while an important diversion may also result from a superficial cross current, as we have noticed in the case of the Gulf Stream. Perhaps the suspension of some suitable weight to these floating messengers, with a line from five to twenty fathoms in length, would afford results of a more satisfactory character; although the duration of such pendulous fixtures can hardly be relied on. If fitted in this manner, the fact should be noted upon the memorandum inclosed, which should specify also the length of line which may be attached.

A full knowledge of the general system of currents in every ocean is obviously of great value to the nautical profession, and is important, also in its relations to physical science. It is hoped, therefore, that these considerations will prove sufficient to stimulate our navigators to make and record the necessary observations, and to promulgate the same through the proper channels of information.

OBSERVATIONS UPON THE GEOGRAPHY OF THE SOUTHERN EXTREMITY OF SOUTH AMERICA, TIERRA DEL FUEGO, AND THE STRAIT OF MAGALHAENS;

Made during the late Survey of those coasts in His Britannic Majesty's ships Adventure and Beagle. By Captain Philip Parker King, F. R. S., &c., and Commander of the Expedition. From the Journal of the Royal Geographical Society.

Considering the vast extent of sea-coast that comprises the southern part of this continent, it is not a little surprising that it should have been so frequently passed by during the last century without having been more visited and explored. Within the last eight or ten years, however, it has been very much resorted to by English and American vessels in the seal trade, and to the observing portion of their enterprising crews many of its intricacies are well known; but as the knowledge they have derived from their experience has only in one instance, that of Mr. Weddel's voyage, been published to the world, our charts cannot be said to have been much improved for the last fifty years.

The eastern coast of Patagonia, by which name the country between the River Plate and the Strait of Magalhaens* is known, as well as the north-eastern side of Tierra del Fuego, were coasted by Malespina; and the charts resulting therefrom, not only vie with any contemporaneous production for accuracy and detail, but are even now quite sufficient for the general purposes of navigation.

The Strait of Magalhaens has been explored by several navigators; but, among the numerous plans of it that are

* There has existed much difference of opinion as to the correct mode of spelling this name. The French and English usually write it Magellan, and the Spaniards Magallànes; but by the Portuguese, and he was a native of Portugal, it was universally written Magalhães. Admiral Burney and Mr. Dalrymple spell it Magalhanes, which mode I have elsewhere adopted, but I have convinced myself of the propriety of following the Portuguese orthography for a name which, to this day, is very common both in Portugal and Brazil.

extant, those of Sir John Narborough and Cordova are the most correct. The first is particularly noticed in the late Admiral Burney's very useful work, and the result of the last has been published in the Spanish language, and is entitled '*Ultimo Viage al Estrecho de Magallanes.*' A second voyage was also made by Cordova to the Strait, the proceedings of which form an appendix to the above work. It is furnished with a good general chart of the coast, another of the Strait, and many plans of the anchorages within it. Byron, Wallis, Carteret, and Bougainville had already made considerable additions to Narborough's plan, from which a chart had been compiled that answered all the purposes of general geographical information, and might even have been sufficient for its navigation: for the latter purpose, however, Cordova's chart was much superior, but being published in Spain only, and its existence little known in England, I found great difficulty in procuring a copy before I sailed, for my own use.

The southern coast of Tierra del Fuego between Cape Good Success, the southern limit of the Strait le Maire, and Cape Pillar at the Strait of Magalhaen's western end, were very little known. Captain Cook's voyage affords several useful notices of the coast between Cape Deseado and Christmas Sound, and the Dutch fleet under Hermite, partially explored the neighborhood of Cape Horn: a confused chart of this coast, however, was the best that could be put together; and although Weddel has more recently published a good account of the harbors and anchorages near Cape Horn and New Year's Sound, yet little available benefit was derived from it, because these different navigators having confined their examinations to small portions of the coast, it was difficult to connect their respective plans, even on so small a scale as that of the general chart.

The western coast of South America, which is very intricate, extending from Cape Victory (the north-west entrance of the Strait of Magalhaens) to the island of Chiloe, may be said to have been wholly unknown; for since the time of Sarmiento de Gamboa nothing but the brief notices of two missionary voyages in piraguas, from Chiloe to the

Guiateca and Guaianeco islands, had been published in the least descriptive of it.

Every person conversant with South American geography must be acquainted with the voyage of Sarmiento. From the determined perseverance through difficulties of no ordinary nature shown by this excellent and skilful navigator, we are possessed of the details of a voyage down the western coast and through the Strait of Magalhaens that has never been surpassed. His journal has furnished us with the description of a coast more difficult and dangerous to explore than any that could be readily selected; for it was at that time perfectly unknown, and is exposed to a climate of perpetual storms and rain: yet the account is written with such minute care and correctness, that we have been enabled to detect upon our charts almost every place that is described in the Gulf of Trinidad, and the channels to the south of it, particularly their termination at his *Ancon sin Salida.*

It would be irrelevant to enter here into the history of Sarmiento's voyage, or indeed, of any other connected with the coasts I am about to describe. Modern surveys are made so much more in detail than what was formerly practised or considered necessary, that little use can be derived from the charts and plans that have been hitherto formed; but the accounts of the voyages connected with them are replete with interesting and useful matter, and much amusement as well as information may be derived from their perusal, particularly Sir John Narborough's journal, and Byron's romantic and pathetic narrative of the loss of the Wager.

The Cordillera of the Andes, which is known to extend from the northern part of the continent almost to its southern extremity without a break, gradually decreases in elevation as it reaches the higher southern latitudes. In the neighborhood of Quito, Chimborazo, and Pinchincha rear their summits to the height nearly of twenty-two thousand feet above the level of the sea: near Santiago de Chile the highest land is fourteen thousand feet; farther south, at Concepcion, it is still lower; and at Chiloe there are few parts of the range exceeding six thousand feet. Between Chiloe

and the Strait of Magalhaens the average height may be taken at three thousand feet; but there are some mountains which may be between five and six thousand feet high.

By a reference to the chart, it will be seen that about the parallel of 40° the coast begins to assume, and retains to its furthest extremity, a very different appearance from that which it exhibits to the northward, where the sea, which is kept at a distance from the Cordillera by a belt of comparatively low land for continuous intervals of some hundred miles, washes a long unbroken shore, affording neither shelter for vessels nor landing for boats; but to the southward of that parallel its waters reach to the very base of the great chain of the Andes, and, flowing as it were, into the deep ravines that wind through its ramifications, from numerous channels, sounds, and gulfs, and, in many instances, insulate large portions of land. In fact, the whole of this space is fronted by large islands and extensive archipelagos, of which the most conspicuous are the great island of Chiloe, Wellington Island, the Archipelago of Madre de Dios, Hanover Island, and Queen Adelaide's Archipelago. The last forms the western entrance of the strait on its north side. The land of Tres Montes, however, is an exception: It is a peninsula, and is the only part of the continent within the above limits that is exposed to the ocean's swell. It forms the northern part of the Gulf of Penas, and is joined to the main by the narrow isthmus of Ofqui, over which the Indians, in travelling along the coast, carry their canoes to avoid the risk of passing round the peninsula, a route of extreme danger. It was here that Byron and his shipwrecked companions crossed over with their Indian guides; but it is a route that is not much frequented; for this part of the coast is very thinly inhabited, and the trouble of pulling to pieces and reconstructing their canoes*, an operation absolutely necessary for them to adopt from the difficulty of the ascent and descent

* During our examination of this part, our boats ascended the river San Tadeo and endeavored in vain to find any traces of the road; an almost impenetrable jungle of reeds and underwood lined the banks of the river, and time was too valuable to admit of further delay in search of an object comparatively of minor importance.

of the mountain over which they must pass, so great that I imagine it is only performed on occasions of great importance. In this way the piraguas which conveyed the missionary voyagers to the Guaianeco islands were transported over the isthmus; the particulars of which are fully detailed in their journals.*

The river San Tadeo, although of small size, being navigable only for eleven miles, is the largest of any of the rivers of the coast to the south of the archipelago of Chiloe, and therefore merits a particular description. At seven miles from the mouth, it is fed by two streams or torrents, the currents of which are so strong that a fast pulling boat can hardly make way against it. One of these streams takes its rise in a mountainous range over which it is probable the communicating road passes; and the other is the drain of an extensive glacier or plain of ice of fifteen miles in extent. The river falls into the Gulf of St. Estevan over a shallow bar upon which there is scarcely two feet water, and at low tide is probably dry.

At the head of St. Estevan's Gulf is St. Quentin's Sound; both were examined and found to afford excellent anchorage, and they are both of easy access should a ship, passing up the coast, find herself upon a lee shore and not able to weather the land, as was the case with the ill-fated Wager.†

* Agueros, Descripcion Historial de la Provincia y Archipielago de Chiloe. 1791, p. 229.

† The precise situation of the wreck of this vessel had hitherto been very vaguely marked on our charts: a careful perusal, however, of Byron's narrative, and of Agueros's account of the Missionary Voyages in 1779, sufficiently point out the place within a few miles. It is on the north side, near the west end of the easternmost of the Guaianeco islands, which we named in consequence Wager Island. At Port Santa Barbara, seventeen miles to the southward of this group, a very old worm-eaten beam of a vessel was found, which there is reason to think may be a relic of that unfortunate ship. It was of English oak, and was found thrown up above the high-water mark upon the rocks at the entrance of the port. No other vestige was detected by us;—the missionaries, however, found broken glass bottles and other evident traces of the wreck. At Chiloe I saw a man who had formed one of this enterprising party, and obtained from him a curious and interesting account of those voyages.

The Guaianeco islands form the southern head of the Gulf of Penas; then follows Wellington Island, separated from the main by the Mesier Channel, which had not been previously explored, its mouth only being laid down in the charts compiled from the information of Machado, a pilot who was sent in 1769 by the viceroy of Peru to examine the coast from Chiloe to the Strait of Magalhaens.* This channel is also noticed in one of the two missionary voyages above mentioned; but the object of these expeditions being for the purpose of converting the Indians to Christianity†, and not for the extension of geographical knowledge, little information of that nature could be obtained from their journal: the entrance of the Mesier, however, is described by them; and on one occasion they were obliged to take refuge in it for fifteen days‡. With this exception I cannot find that it has ever been entered before our visit.

The length of the channel is one hundred and sixty miles, and it joins the Conception Strait behind the Madre de Dios archipelago, at the Brazo Ancho of Sarmiento. Lieutenant Skyring, who superintended this particular part of the survey, called the land which it insulates, Wellington Island; the seaward coast of which, bearing on the old chart the name of Campana, is probably fronted by one or more islands. Fallos Channel, which separates the Campana and Wellington Islands, was examined, from its northern entrance, for thirty-three miles, and was conjectured, after communicating with the sea at Dynely Sound, to extend to the southward, and fall into the Gulf of Trinidad by one of the deep sounds which were noticed on the north shore.

About thirty miles within the Mesier Channel, from the northern extremity, the west side appears to be formed by a succession of large islands, many of which are separated by wide channels leading to the south-west, and probably communicating with the Fallos Channel. On the eastern shore the openings were found to be either narrow inlets or abruptly terminating sounds.

On both sides of the channel the coast is hilly, but not

* Agueros, p. 205, et seq. † Ibid. p. 181, et seq. ‡ Ibid. p. 237.

very high, and in many places there is much low and generally thickly wooded land. This character distinguishes the Mesier from all other channels.

The trees here are nearly of the same description as those which are found in all parts between Cape Tres Montes and the Strait of Magalhaens. Of these the most common are an evergreen beech (*Faus betuloides*), a birch-like beech (*Fagus antarctica*), the winter's bark (*Winterana aromatica**), and a tree with all the appearance and habit of a cypress, of which the Indians make their spears; and among others there is one, the wood of which being extremely hard and weighty, answers better than the rest for fuel; the sealers call it "the red wood," from its colour. From the great quantity of timber which grows here it would be naturally supposed probable that spars for masts could be easily obtained, or at least woods useful for less important purposes; but, although many trees were found that were sufficiently large at the base, they grew to no great height; and, in consequence of the moisture of the climate, and the crowded state of the forests preventing the admission of the sun's rays, the wood generally proved to be decayed in the heart; besides being very subject, even after a long seasoning, to warp and split when exposed to a dry air.

Ten miles beyond White-Kelp Cove, which is fifty miles within the entrance, the character of the Mesier Channel changes entirely; the shore on either side being formed of mountainous and precipitous ridges rising abruptly from the water. After this, at Halt Bay, twenty-three miles beyond White-Kelp Cove, the channel narrows for a considerable distance, and in three particular places is not more than four hundred yards wide. This part of the channel is called in the chart, the English Narrows. It is long and intricate, with many islands strewed throughout; and preserves its tortuous and frequently narrow course to its junction with the "Wide Channel," in which the breadth increases to two miles and a half; and then, running thirty-four miles with a

* Living plants of the above trees, and other vegetable productions from the Strait of Magalhaens, were introduced into England upon the return of the expedition, and have since thriven exceedingly well.

direct and unimpeded course, falls into the Concepcion Strait as above stated.

At the point where the Mesier and the Wide Channels unite, a deep sound extends to the N. N. E. for forty-six miles. It was named Sir George Eyre's Sound. An extensive glacier sloping into the sea from the summit of a range of high snowy mountains, that are visible from many parts of the Mesier Channel, terminates this sound; and near the head of it several large icebergs, containing no inconsiderable blocks of granite, were found aground.*

Of the archipelago of Madre de Dios we know very little. It has probably many deep openings on its seward face, and is fronted by islands and rocks. Its character is rocky and mountainous, and by no means agreeable. The wide and safe channel of Concepcion Strait separates it from the main land, which in this part is much intersected by deep sounds, the principal of which, the Canal of St. Andrew, extends to the base of the snowy range of the Cordillera, and there Lieutenant Skyring describes it to be "suddenly and boldly closed by tremendous and astonishing glaciers."

Sarmiento's "Puerto Bueno" was found to be, as the name describes it, an excellent harbor. The depth of water all over is not more than nine fathoms, an advantage which few harbors hereabout possess: a ship is in perfect security in any part, but this is the only peculiar advantage the port offers; for wood and water are equally abundant; fish are as easily to be caught; and the steamer or racehorse duck, geese, wild ducks, and other smaller birds, are as numerous in all other places. But of any other useful productions, or good soil, the country is quite destitute: "for if," says Lieutenant Skyring, "we force a passage through the woods, it is

* Near Falcon Inlet, seven miles up the eastern side of Sir George Eyre's Sound, are some large "rookeries," or breeding-haunts of fur-seal. Many thousands of these animals were congregated together, which had been probably driven from the sea-coast by the activity of the seal-fishers; and perhaps, for many years, if not ages, have been breeding undisturbed in this hitherto unknown, and therefore safe and quiet recess. Two seals that were killed appeared to be of the same description as the species which frequents the sea-coasts.

over fallen trees and moss; if we walk over open, flat ground, we find the place a swamp; and if we climb the hills, we travel over a continuous rock, generally covered by a spongy moss, and entirely destitute of soil of any description."

Behind Hanover Island, which is separated from Madre de Dios by the Concepcion Strait, the main is very much intersected by extensive sounds trending deeply into the land, like the St. Andrew Channel, to the base of the Andes.

South of Hanover Island is Queen Adelaide's Archipelago, through which are several channels that communicate with the Strait of Magalhaens; of which the principal, Smyth's Channel, falls into the strait at Cape Tamar.

Of the whole of the outer or sea-coast, from the Guaineco Islands to the strait, we know little, our operations having been confined to the exploration of the interior channels and sounds, the examination of which is even yet far from being complete.

In the winter of 1829, my colleague, Captain Robert Fitzroy, the commander of the Beagle, in examining the Jerome Channel, which communicates with the strait in that part called Crooked Reach, discovered "Otway Water," a large inland sea fifty miles long, trending to the N. E., and separated from the eastern entrance of the strait by a narrow isthmus; the actual width of which was not ascertained, for in the attempt the boats were nearly lost. The south-eastern shore is high and rocky, and generally precipitous, but the northern is formed by low undulating grassy plains, free from trees, and precisely like the country about the entrance of the strait. At the north-west corner of the water, Captain Fitzroy found the mouth of a channel which carried him in a north-west direction for twelve miles, when it opened into another inland salt water lake, about thirty-four miles long and twenty wide. This was called the Skyring Water. The southern and western sides of the Water are bounded by mountainous land, but the northern shore is low, apparently formed of undulating downs and grassy plains, and in some places watered by rivulets. At the western extremity of the water, Captain Fitzroy observed two open-

ings, separated by a remarkable castellated mountain which he called Dynevor Castle. Beyond the southernmost opening there was no land visible, not even a distant mountain, which induced Captain Fitzroy to suppose that it was a channel communicating with the western coast; but from what we now know, it is not probable that it can lead to anything of consequence. It is perhaps backed by low marshy land reaching to the hills at the bottom of Glacier Bay, which, from the distance being seventy miles, were not visible above the horizon. The northern opening probably winds under Dynevor Castle, and perhaps very nearly reaches the bottom of Obstruction Sound. The Skyring Water was not further explored; partly from want of a sufficient quantity of provisions to undertake it with any prospect of succeeding, and partly from a strong south-westerly gale, from which there was no shelter for the open boats in which this examination was performed. The remainder, therefore, of Captain Fitzroy's time was spent in perfecting what he had commenced; and, after an absence of thirty-two days, he rejoined the ship at Port Gallant.

At the western end of the Fitzroy Channel, which unites the waters, the shore is well clothed on the north side with luxuriant grass and trefoil, with here and there a sprinkling of brushwood, but is entirely destitute of trees. The soil, although dry, is light and tolerably good; but the ground is perforated everywhere by some burrowing animal, probably skunks or *cavias*. The tracks of horses were noticed in many places, and the bones of guanacoes were scattered about. Water was not very plentiful, but several small brooks and springs in the sides of the hills were observed, sufficient for all useful purposes.

On the south side of the channel the land is low but wooded: the banks are from five to forty feet high, sloping to the water, and covered with grass. In the entrance the tide ran five or six knots at the neaps, but inside with only half that rapidity. On the north side, at the distance of a mile and a half, there is a ridge of hills, at the summit of which Captain Fitzroy made an excursion, which he thus describes:—

"Our way led through a scattered wood, the only one I saw on the north bank of the channel. Most of the trees appeared to have been either burned or blown down by the wind, and then blackened by decay. We reached the foot of the hills at eleven o'clock, having commenced our journey at eight, and attained the summit at twelve o'clock, whence the view we obtained amply repaid us for our trouble. It is a central spot; and, although not more than six hundred feet above the level of the sea, offers as extensive a view as any spot near it. We could see the hills near Cape Gregory, the Sweepstakes Foreland, Elizabeth Island, Cape Monmouth, the high peaks near Cape Froward, and the range of mountains between it and Jerome Channel, some of the mountainous land between Capes Philip and Parker, and the whole extent of the Otway and Skyring waters. The latter seemed to be bounded to the north-east by down-like hills, about three or four hundred feet high. To the north of the station extends a range of similar downs, and to the east, a succession of lagoons completely intersect the flat country between it and Peckett's Harbor. No opening was observed in the eastern side of Otway Water, and the neck of land separating it from the strait near Elizabeth Island, did not seem to be more than three or four miles wide."

In consequence of the supposed communication of the Skyring Water with some part of the western coast, a careful examination was made of every opening trending into the interior behind the islands and archipelagoes that line the western coast; the result of which has proved that the hypothesis so naturally formed by Captain Fitzroy was not confirmed by fact. A reference to the chart will show how carefully the search was carried on, and with what want of success it was concluded. The deep opening discovered by Sarmiento, and named by him "Ancon sin salida," was found upon examination to extend so far into the interior, and in the direction of the Skyring Water, that the most minute investigation of the numerous sounds and canals was made in the perfect conviction of finding the desired communication. But after a patient, laborious, and minute investigation, particularly of those openings which led to the

southward, among which Obstruction Sound held the most flattering appearance, Lieutenant Skyring, who performed this service, was obliged to give up the search and return. At one part, near the south-eastern end of the sound, he entered an opening which at first had an appearance that was favorable to the desired communication, but it terminated in low woody land. There was, however, a wooded hill near the shore, which he ascended with the hope of obtaining a view of the country; but the sides and summit of the hill were so thickly clothed as to obstruct his view, and with the exception of some distant high land in the south-east quarter, and a sheet of water about six miles off in the same bearing, nothing was discerned to repay him for the fatigue and trouble of the ascent. Whether the water is a lagoon, or a part of the Skyring Water, or whether it communicates with the opening trending round the north side of Dynevor Castle, remains yet to be ascertained.

After being foiled in this attempt, Lieutenant Skyring proceeded onward in a S. S. W. direction, and after a pull of ten miles came to the bottom of the sound. It was terminated by high precipitous land encircling every part. "Throughout the examination of this sound," he writes, "we never distinguished any strength of tide, and the rise and fall never appeared to have exceeded a foot; that there was a slight ebb and flow was evident from the streams of foam which extended from the water courses, and also from the fallen leaves borne off the shore of the bays in long lines; but signs like these, I believe, will be considered indicative of there being no strength of tide. I have frequently noticed such appearances in large ports and inlets, but never in any channel." Neither wigwams, nor traces of Indians, were seen in this sound, another proof, were one required, of the sound not communicating with the Skyring Water; for the Indians very rarely visit these deep inlets, but are always to be found in narrow straits or communicating channels, where, from the strength of the tide, seals and porpoises, which constitute the principal food of the Fuegian Indians, abound. Sarmiento's name, therefore, of "Ancon sin salida" (a cove or inlet without a thoroughfare), a name, which we

had hoped to have expunged from the chart, must now remain a lasting memorial of his enterprising character, and of a voyage deservedly one of the most celebrated as well as most useful of the age in which it was performed.

The termination of Obstruction Sound is one of the most remarkable features in the geography of this part of South America.

In this examination the southern extremity of the Cordillera was ascertained. The eastern shores of the interior channels were found to be low plains, with no hills nor mountains visible in the distance, and such being the feature also of the northern shores of the Otway and Skyring Waters, it is probable that all the country to the east of the sounds is a continued *pampa* or plain.

Recent traces of Indians were seen in some places, but at the time our party was there they were either absent or had concealed themselves. I should not think that these interior sounds are much frequented by them; a family was, however, met in the Fitzroy Channel (which separates the Otway from the Skyring), clothed with guanaco skins, like the Patagonian tribes, but in the manners and disposition resembling the wandering inhabitants of the Strait and Tierra del Fuego; and they had canoes, which the Patagonians do not use. They had probably come thus far for the purpose of communicating with the latter tribes, with whom they frequently have friendly intercourse. No guanacoes were seen either on the shores of the inland waters or of the sounds within the "Ancon sin salida," although the country, being open and covered with luxuriant grass, was peculiarly suited to their habits; but as several large herds of deer were observed feeding near the sea-shore of Obstruction Sound, and the neighboring country, the presence of these latter animals may probably be the cause; for on the eastern coast, where the guanacoes are every where abundant, the deer do not make their appearance. Sea-otters were the only other animals that we met with, and they were only occasionally noticed swimming about the kelp. The shores of the sounds were in many places crowded with the black-necked swan (*Anas nigricollis*, Linn.), and there were a few seen, but

only one captured, whose plumage, excepting the tips of the wings, which were black, was of a dazzling white color. I have described it in the first part of the Proceedings of the Zoological Society as a new species (*Cygnus anatoides.*)

The Strait of Magalhaens, being a transverse section of the continent, exhibits a very good view of its geological structure. The strait may be divided into three portions; the western, central, and the eastern. The western end and centre are of primitive character, rugged and very mountainous; whilst the eastern portion is of recent formation and low. The western tract is composed of a succession of stratified rocks, a difference at once distinguishable by the form and nature of the ranges and the direction of the shores; the hills are irregularly heaped together; the sounds are intricate and tortuous in their course, and the shores are formed by deep sinuosities and prominently projecting headlands: the channels, also, are studded with innumerable islands and rocks extremely dangerous for navigation. In this portion the rock is, for the most part, granite and greenstone.

Near the centre of the strait, the rock being clay-slate, the mountains are higher, and more precipitous and rugged in their outline; and consequently not easily to be ascended. They are in general three thousand feet, but some are found to be four thousand feet in height; and one, Mount Sarmiento, is upwards of six thousand feet high, and is covered throughout the year with snow. The line of perpetual snow in the strait seems to be about three thousand five hundred or four thousand feet above the sea; for the mountains, whose height does not exceed three thousand, are, during the summer, frequently free from any, excepting in holes, where a large quantity is accumulated by drifting, and protected from the sun. The strait here is quite free from islands, and it is a remarkable fact, that where the greenstone formation terminates there the islands cease to appear.

The slate formation continues as far as Freshwater Bay, where the stratified rocks leave the coast and extend backwards in a north-west direction. The soil then becomes apparently a mixture of decomposed slate and clay; the

slate gradually disappearing on approaching to Cape Negro, where the rock partakes of the character of the east coast. Here again we observe, along with the change of geological character, the reappearance of islands, the soil of which is clayey, but with masses of granite, hornblend rock and clay slate protruding in many places through the superficial soil, which, although it yields a poor grass, is entirely destitute of trees.

In that portion of the strait to the eastward of Cape Negro the hills are remarkable for the regularity and parallelism of their direction, and their general resemblance to each other. On the north shore, near Cape Gregory, a range of hills commences suddenly, with rather a precipitous ascent, and extends for forty miles to the north-east, where it terminates in detached rocky hills. The south-western end of the range is a ridge of flat-topped land covered with soil, but with here and there a protruding mass of primitive rock: one of these appeared to be of sienite or granite. The north-eastern end of this range is perhaps more bare of soil, and, therefore, exposes the rock, which shows itself in detached hills. Precisely similar in appearance and direction is a range on the south shore, about fifty miles in length, commencing at Cape Monmouth and terminating in detached hills in the vicinity of the south side of the First Narrow. The courses, also, of both the First and Second narrows, which are just within the eastern entrance of the strait, are nearly parallel with these hills; and the smaller ranges of eminences, Elizabeth Island and the cliffy land of Cape Negro, where the clay formation commences, all trend to the N. N. E., preserving a general resemblance of form and character to the ranges above mentioned.

The irregularity of the topographical features of the more western portion of the strait, combined with its confused assemblage and immense number of islands and rocks —the regularity of the strata,—the coinciding parallelism of all the bays, channels, and sounds,—and the total absence of islands in the central portion or slate formation, together with the remarkable similarity of the direction of the hills and coast line and the stratification of the north-eastern

tract, which is very different from that of the centre,—are very striking facts, and, geologically considered, are of great interest.

No less remarkable, however, and equally interesting, is the character of the vegetation; not so much in the variety of plants, as in their stunted growth to the westward, their luxuriance in the centre, and the total absence of trees to the eastward. For this modification the following reasons seem to me to account sufficiently:—to the westward the decomposition of granite, and the other primitive rocks which are found there, forms but a poor, unproductive soil; so that, although the land is thickly covered with shrubs, they are all small and stunted: the torrents of water also that pour down the steep sides of the hills, wash away the partial accumulations of soil that are occasionally deposited; consequently, few trees are to be found, excepting in clefts and recesses of the rock where decomposed vegetable matter collects and nourishes their growth; but even there they are low and stunted, for the most luxuriant seldom attain a larger diameter than nine or ten inches.

From the regularity of the direction of the strata in the slate districts the valleys are very extensive, and, being bounded on either side by precipitous mountains much intersected by deep ravines, receive large streams of water, which, uniting together in their course to the sea, form no inconsiderable rivers. During the winter months these rivers become swollen and overflow their banks, and deposit a quantity of alluvium, which, blending with the fallen leaves and other putrescent substances, produces a good superficial soil, in which trees grow to a large size, and the shrubs and smaller plants become particularly luxuriant and productive.

At Port Famine, and in its neighborhood, the evergreen beech (*Fagus betuloides*) grows in the greatest abundance, and reaches a very large size. Trees of this species, of three feet in diameter, are abundant; of four feet there are many; and there is one tree (perhaps the very same noticed by Commodore Byron,)* which measures seven feet in diam-

* Hawkesworth, Voyages, i., 38.

eter for seventeen feet above the roots, and then divides into three large branches, each of which is three feet through. This venerable tree seemed to be sound, but from our experience of several others that were cut down, might be expected to prove rotten in the centre. This tendency to decaying in the heart may be attributed to the coldness of the schistose sub-soil upon which the trees are rooted, as well as to the perpetual moisture of the climate above alluded to.

The slate formation ceases at Port St. Mary, but there is no decided change in the vegetation until we come to Cape Negro, where the clay commences; and from thence onwards there is not a tree to be found. The nature of the soil is not favorable to plants which take a deep root, and, therefore, only shrubs and grasses are found: the former are thinly scattered over the extensive plains which characterise this country; but the grasses are abundant, and although of a harsh and dry appearance, must be nourishing, for they form the chosen food of numerous and large herds of guanacoes.

Besides the evergreen beech above mentioned, there are but few other trees in the Strait that can be considered as timber trees. Such an appellation only belongs to two other species of beech and the winter's bark. The last, which is also an evergreen, is to be found mixed with the first, in all parts of the Strait; so that the country and hills from the height of two thousand feet above the sea, to the very verge of the high-water mark, are covered with a perpetual verdure which is remarkably striking, particularly in those places where the glaciers descend into the sea; the sudden contrast in such cases presenting to the view a scene as agreeable as it seems to be anomalous. I have myself seen vegetation thriving most luxuriantly, and large woody stemmed trees of *Fuchsia* and *Veronica*,* in England considered and treated as tender plants, in full flower, within a very short distance of the base of a mountain, covered for two-thirds down with snow, and with the temperature at

* The stems of both from six to seven inches in diameter.

36°. The *Fuchsia* certainly was rarely found but in sheltered spots, but not so the *Veronica;* for the beaches of the bays on the west side of St. John's Island at Port San Antonio are lined with trees of the latter, growing even in the very wash of the sea. There is no part of the Strait more exposed to the wind than this, for it faces the reach to the west of Cape Froward, down which the wind constantly blows, and brings with it a constant succession of rain, sleet, or snow; and in the winter months, from April to August, the ground is covered with a layer of snow, from six inches to two or three feet in depth.

There must be, therefore, some peculiar quality in the atmosphere of this otherwise rigorous climate which favors vegetation; for if not, these comparatively delicate plants could not live and flourish through the long and severe winters of this region.

In the summer, the temperature at night was frequently as low as 29° of Fahrenheit, and yet I never noticed the following morning any blight or injury sustained by these plants, even in the slightest degree.

One circumstance, however, deserves to be mentioned, which may in some measure account for the innocuous effect of so low a temperature. I have occasionally, during the summer, been up the greater part of the night at my observatory, with the internal as well as the external thermometers as low as freezing point, without being particularly warmly clad, and yet not feeling the least cold; and in the winter, the thermometer, on similar occasions, has been at 24° and 26°, without my suffering the slightest inconvenience. This I attributed at the time to the peculiar stillness of the air, although within a short distance in the offing and overhead, the wind was high.

Whilst upon this subject, there are two facts which may be mentioned as illustrative of the mildness of the climate, notwithstanding the lowness of the temperature. One is the comparative warmth of the sea near its surface, between which and the air, I have in the month of June, the middle of the winter season, observed a difference of 30°, upon which occasion the sea was covered with a cloud of steam.

The other is, that parrots and humming-birds, generally the inhabitants of warm regions, are very numerous in the southern and western parts of the Strait—the former feeding upon the seeds of the winter's bark, and the latter have been seen by us chirping and sipping the sweets of the *Fuchsia* and other flowers, after two or three days of constant rain, snow, and sleet, during which the thermometer has been at freezing point. We saw them also in the month of May upon the wing, during a snow shower; and they are found in all parts of the south-west and west coasts as far as Valparaiso. I have since been informed that this species is also an inhabitant of Peru; so that it has a range of more than 41° of latitude, the southern limit being 53 1-2° south.*

Tierra del Fuego is divided into three large islands by two channels; one of which is opposite to Cape Froward, and the other fronts Port Gallant. The easternmost, Magdalen Sound, trends in a due south direction for nineteen miles, and separates the clay slate from the more crystalline rocks which seem to predominate in Clarence Island, and are chiefly of greenstone; though, at the eastern end, there is much mica slate. At the bottom of Magdalen Sound the channel turns sharply to the westward; and, after a course of about forty miles, meets the Barbara Channel, which, as above mentioned, communicates with the strait opposite to Port Gallant, and both fall into the sea together. Magdalen Sound and its continuation, Cockburn Channel, are almost quite free from islands and rocks; but the Barbara Channel, which separates the granite from the greenstone and mica slate districts, is throughout thickly strewed with islands, which reduce the channel in some places to a mile, and, in one place to not more than fifty yards in width. Here, of course, the tide sets with great strength. Several vessels,

* This bird, although not rare in several English Collections, had never been noticed until I forwarded it to England in the early part of the year 1827, when my friend Mr. Vigors described it in the Zoological Journal for the month of November, 1827, (vol. iii., p. 432,) under the name of *Mellisuga Kingii*. Shortly afterwards, M. Lesson published it in his Manuel d'Ornithologie, (vol. ii., p. 80,) as *Ornismya sephaniodes*, as a discovery belonging to the Coquille's voyage, in the illustrations of which it is figured at plate 31.

however, have passed through it under sail; and one ship, (a whaler belonging to Messrs. Enderbys,) working through the strait, and finding much difficulty in passing to the westward, bore up, and the wind being fair and the distance to the sea only fifty miles, ran through it without accident. The land to the westward of the Barbara Channel is high and rugged; and although in the valleys, ravines, and sheltered nooks there is no want of vegetation, yet, in comparison with the eastern part of the strait, it has a very dismal and uninviting appearance. It was called by Sarmiento, "Santa Ines Island;"* but Narborough called it, very appropriately, "South Desolation, it being," as he says, "so desolate land to behold."†

Clarence Island, the extent of which is fifty-two miles long and twenty-three broad, although equally rocky, is much more verdant in appearance. The uniform direction of the headlands of the north shore of this island is remarkable. Upon taking a set of angles with the theodolite placed upon the extremity of the west end of Bell Bay, opposite to Cape Holland, the most prominent points to the south-east, as far as could be seen, were all visible in the field of the telescope at the same bearing. The same thing occurred on the opposite shore of the Strait, where the projections of Cape Gallant, Cape Holland, and Cape Froward, are in the same line of bearing; so that a parallel ruler placed on the map upon the projecting points of the south shore, extended across, will also touch the headlands of the opposite coast.

The eastern island, which had been previously called, and of course retains on our charts the name of *King Charles's South Land*, extends from the entrance of the Strait to the outlet of the Barbara and Cockburn Channels, at Cape Schomberg. The northern part partakes of the geological character of the eastern portion of the Strait. The centre is a continuation of the slate formation, which is evident at a glance, from the uniformity of the direction of the shores of Admiralty Sound, the Gabriel Channel, and all the bays and mountain ranges of Dawson's Island. The

* Sarmiento, p. 180. † Narborough's Voyages, p. 78.

south shore, or seaward coast line, is principally of greenstone, excepting the shores of the Beagle Channel, which extend from Christmas Sound to Cape San Pio, a distance of a hundred and twenty miles, with a course so direct that no points of the opposite shores cross and intercept a free view through; although its average breadth, which also is very parallel, is not more than a mile, and in some places only a third of a mile across. The south shores of Hoste and Navarin Islands are of horn-blende rock, which is also the principal component of the islands in the neighborhood, as well as of the island itself of Cape Horn. The eastern part of King Charles's South Land is low, with plains like the Patagonian coast; but the range of high land crossing the Strait at Port Famine extends down the north side of Admiralty Sound, and, perhaps with some few interruptions, continues to the south-east extremity of the land, at Cape Good Success, which is the south cape of the west side of Strait Le Maire, and there terminates in lofty mountains covered with snow, one of which, called on the charts "The Sugar-loaf," is probably four thousand feet high.

The eastern shore of King Charles's South Land, towards the south part, is lofty, but near the northern part is very low. The interior is also low, with extensive plains, abounding with guanacoes, some of which were shot by the officers of the Beagle within fifty miles of Cape Horn.

In the year 1828, from the commencement of January to the middle of August, the Adventure (the ship I commanded) was at anchor at Port Famine, in the strait of Magalhaens, in latitude 53° 38 1-4′ south, and longitude 70° 54′ west of Greenwich; and during the whole of that time a careful meteorological journal was kept. The temperature was registered from a very good thermometer of Fahrenheit's scale, suspended within a copper cylindrical case of nine inches diameter, and perforated above and below with holes, to admit a free current of air. The cylinder was fixed to the roof of a shed, thatched with dry leaves to shelter it from the sun, while the sides were open. The barometer (a mountain barometer made by Newman, with an iron cylinder) was hung up in the observatory, five feet above the

high water mark, and both instruments were examined carefully and regularly at the following hours, viz.: six and nine o'clock in the morning, at noon, and at three and six o'clock in the evening. The state of the atmosphere was observed daily, by Daniel's hygrometer, at three o'clock in the afternoon. The maximum and minimum temperatures were also observed twice in twenty-four hours, from a Six's thermometer, viz.: at nine o'clock in the morning, and at nine in the evening.

The mean temperature for the autumnal period (the months of February, March, and April) was 47°2; the maximum and minimum were respectively 68° and 28°. For the brumel period, the three following months, the mean temperature was 34°.5, and the maximum and minimum 49°.5 and 12°6. During the former, or autumnal period, the barometer ranged between 30.099 and 28.768 inches, and for the latter it was between 30.5 and 28.274 inches. The range for the first being 1.331 inches, and for the last 2.226 inches.

The eastern coast of Patagonia, from the entrance of the Strait of Magalhaens to the River Plate, is comparatively low. From Cape Virgins to Port St. Julian, where porphyritic claystone commences, the coast is formed of clay cliffs, horizontally stratified, and the country is undulating, with extensive plains, or *pampas*, covered with grass, but without trees. At Port St. Julian the country becomes hilly, and continues so as far to the northward as latitude 44°, the rock being porphyritic. The clay formation to the southward has been likened to the appearance of the coast of Kent, and, at a short distance, it bears, certainly, a very great resemblance to it; but the cliffs, instead of being of chalk, are composed of a soft marly clay, without any gravel or impressions of organic remains, excepting at Port St. Julian, where fossil shells, both bivalves and univalves, are found imbedded in clay cliffs; and, on the surface, are lying, strewed about, large oyster shells.

In the clay formation there are three rivers; the Gallegos in latitude 51° 38′; Port Santa Cruz in latitude 50° 7′, and in 49° 12′ is Port St. Julian. The first does not extend

further into the interior than forty miles from the coast, and to about the same distance Port Santa Cruz penetrates; but Port San Julian is of much smaller size, and Coy Inlet, in latitude 50° 58′, can only be entered by boats. The Gallegos, at high water, may be easily entered, but, at low water, the banks are dry to a great extent; a channel, however, is left on its south side of sufficient depth for a small vessel: the tide rises here forty-six feet, and the stream is very strong. At Santa Cruz and Port San Julian the tides are neither so strong, nor do they rise and fall so much as at the Gallegos.

Port Desire, about thirty miles to the southward of Cape Blanco, the mouth being in 47° 45′ south latitude, has a narrow entrance with strong tides; but affords in the offing very good anchorage as well as shelter from the prevailing winds, which are off shore or westerly. The river extends up the country nearly in a due west direction for eighteen miles, but the land is dry and parched, and very unsuitable for the establishment which the Spanish government formed there not many years since, and of which evident traces remain to this day.

St. George's Gulf, called in the old charts "Bahia sin Fondo," or Deep-Sea Gulf, was formerly considered to be a deep sinuosity of the coast into which a river emptied its waters after winding through a large tract of country; for, until the Descubierta and Atrevidas voyage of discovery, very vague accounts have been given of this or indeed of any other part of the coast. The Gulf, upon that examination, was found to possess no river or creek in any part excepting on the north side, where there are several deep bays and coves which are and have been frequented by our sealing vessels. Its northern head is called Cape Two Bays; and, thirty miles to the northward, is Port St. Elena, which is the northern limit of our examination of the eastern coast. The country about is dry and parched, although thickly covered with small shrubs and a tolerable grass, on which large herds of guanacoes feed.

According to Falconer, (the Jesuit missionary, who resided many years among the Indian tribes inhabiting the

country about Buenos Ayres,) the eastern coast between the latitudes of 41° and 51° is frequented by the natives for the purpose only of burying the dead: they have, however, been occasionally met with travelling along the coast, apparently without any particular object in view. Near Port Desire I have seen the graves of the Indians on the summit of the hills, but the bodies had been removed, probably by the Indians themselves; for we are informed by Falconor, that, after the dead have been interred twelve months, the graves are visited by the tribe for the purpose of collecting the bones and conveying them to their family sepulchres, where they are set up and adorned with all the beads and ornaments the friends and family of the deceased can collect for the occasion. The ceremony is performed by certain women of the tribe whose peculiar office it is to attend to these rites.

NOTICE OF ERICSSON & OGDEN'S PATENT SOUNDING LEAD.

By a member of the U. S. Lyceum.

AMONG the many inventions and improvements in navigation, which have recently been suggested by the ingenuity and experience of scientific and practical men, I may venture confidently to predict, that there is not one which will prove of more importance to the Navy, to the merchant, and the seaman, than the Patent Sounding instrument invented by Ogden and Ericsson. It is based on a scientific principle which cannot err, viz.: that the pressure of the water at given depths, is always the same. And it is so perfectly simple in its construction, that even the common sailor, with a single explanation, can understand its use. In size and weight it differs but little from the common lead. It has a cavity on one side to admit a strong glass tube, into which the water is forced by external pressure as it descends, and a scale by its side, graduated on a brass plate to register the

depth, which is shown by the height of the water in the glass tube precisely as the density and temperature of the atmosphere are indicated by the scales of the barometer and thermometer.

To the scientific reader, it may be interesting to know the process of graduating the scale, which he will at once perceive, must be perfectly correct. The relative weight of an inch of mercury and a fathom of sea-water is easily ascertained, say five inches of the one is equal to one fathom of the other, (not accurately so, but near enough for explanation.) A strong glass tube in joints well secured, forty to fifty feet in height, communicates with a basin of mercury, which basin is joined by a pipe to a strong iron cylinder capable of containing about 20 of the instruments. This number when completely finished, except the graduation of the scale, is placed upright in the cylinder, which is then filled with water and the top firmly screwed down, making an hermetical joint. Attached to the other side of this cylinder is a *Bramah press*, by which a further quantity of water is forced into it, the column of mercury indicating, by every five inches, the pressure of a fathom of sea-water. The mercury being forced to 100 inches, would give 20 fathoms. The top of the cylinder is then taken off, and the water in each glass tube of the instruments will stand at 20. This is marked on each, and the process is repeated for 30, 40, 50, &c. fathoms. The intermediate scale is projected by calculation.

The great advantage of this sounding instrument is that of obtaining correct soundings without heaving to, or even deadening the ship's way. Numerous experiments have already been made with it, by officers of intelligence, some of whose reports will be found annexed, and all bear corroborative testimony of its correctness and practical utility. One of the most prominent causes of the loss of so many of our fine ships, particularly on our own coast, is the great anxiety of their commanders to make short passages, and their consequent unwillingness to heave to with a fine breeze when approaching the land, for the purpose of ascertaining the depth of water; but, with this instrument on

board, they may gratify their anxiety without in any manner endangering the ship, as correct soundings may be obtained up to 80 fathoms, whilst going at the rate of 6 knots, and 45 to 50 fathoms at the rate of 10 knots. Thus they may run on boldly, only observing the precaution of dropping the lead over occasionally, certain of having the exact depth of water, indicated by this valuable instrument. No ship of war ought to be sent to sea without being provided with several of them; and every merchant ship should have at least two. With these, and the excellent chronometers now made by Parkinson & Frodsham of London, the danger of navigation will be so much lessened, as only to require a very moderate capacity and ordinary prudence on the part of the commander, to keep his ship afloat, and always in the right track. It has always appeared to me strange, and I must add short-sighted on the part of insurance officers, that so little is exacted as to the means and facilities of navigating the ship they insure. If she is only sound, strong, well-found in anchors and cables, and stands A. 1, at Lloyds, she can command insurance at the lowest premium. These are all doubtless important requisites, and ought not to be dispensed with; but the experience, not only of our last severe and disastrous winter, but of all time, shows us that no degree of strength is sufficient to bear up against the rock, the breaker, and the beach. So long as a good ship can be kept afloat under the management of a skillful seaman, she may defy the elements, but when brought in contact with the shore or unsparing rock, it is to her *the stroke of death*, which equally overcomes the strong and the weak. It is certainly, therefore, a part of good policy, not only to require that a ship shall be strong, but that she shall be *well-found* in every respect. This, in the common acceptation of the term, applies to good sails, rigging, anchors, cables, &c., but I would add, as a matter of paramount importance, good chronometers, good sextants, and good sounding leads. The two former have been for some years past (thanks to the liberal patronage of the British government) in as great a state of perfection as could be desired; but of the many attempts to introduce a sounding lead which would give correctly the

depth of water without heaving the ship to, none have succeeded until the present ingenious invention of Messrs. Ogden & Ericsson. But the following testimonials given by men of intelligence and experience, will do more to establish its practical usefulness than any thing further I can say.

Copy of a letter from Lieutenant Commandant Philip Bisson, of H. M. Brig Partridge, to Captain Ericsson.

To Captain Ericsson—

My Lords Commissioners of the Admiralty having ordered a trial of your patent sounding instrument, I was directed by Rear Admiral, the Hon. Sir Charles Paget, on the 12th of this month, to proceed in H. M. Brig Partridge, under my command, towards the Atlantic Ocean for that purpose. I have accordingly to certify, that I have put your sounding instrument to a complete practical test, by using it every second hour, by day and by night, for nine days, beginning with a depth of five fathoms, and extending to 600 fathoms; soundings up to 80 fathoms being obtained whilst going at the rate of six knots per hour.

Respecting the accuracy of the instrument, I have only to state that I found it perfect. And as to simplicity I need only say that all my crew soon understood its use; and on these grounds I can strongly recommend this instrument as being of great practical utility.

(Signed) Philip Bisson.
Lieutenant and Commander.

Plymouth, this 22d day of September, 1836.

Copy of a letter from Lieutenant Wilkes, of the U. S. Navy, to Lieutenant Commandant H. W. Ogden.

New-York, 15th April, 1836.

Sir—It affords me great pleasure to state to you that I am well acquainted with the merits of Ogden and Ericsson's patent lead. I have seen them tested repeatedly under hydraulic pressure at Braithwaite & Co.'s establishment, and they gave with great exactness, the pressure indicated by the scale, even to a 1-4 of a fathom. So much was I pleased with their performance, that I purchased six for the Expedi-

tion; and during the passage have had several trials of them, viz., on the banks, in 40 fathoms, the ship going at the rate of 5 knots. I have little doubt but that soundings may be obtained in that depth at a much greater rate of sailing, provided care is taken to give plenty of line. Whilst becalmed on the banks, we had a full opportunity of testing its accuracy with the ordinary lead and line, which was duly measured; and again off Sandy Hook, at all times giving what was estimated to be the perpendicular sounding, by allowing for stray line with the common lead, with surprising accuracy. It is very simple in its construction, and quite as much so in use; and I hesitate not to say, that, after a fair trial, no seaman would be without one who is desirous of accuracy.

I am, sir, respectfully,
Your obedient servant,
(Signed) CHARLES WILKES.

H. W. Ogden, Esq., Commander U. S. ship Hudson.

Copy of a letter from William E. Hoseir, Master of the Packet Ship North America.

New-York, April 17, 1837.

SIR—I beg to recommend to your notice Messrs. Ogden and Ericsson's patent sounding lead. I have made use of it in various ways, that is to say, with the ship hove too, and when going at the rate of seven knots, and in every instance have found it perfectly correct. The depth of water in which I sounded with it was from 14 to 25 fathoms.

Respectfully,
Your obedient servant,
(Signed) WILLIAM E. HOSEIR.

To H. W. Ogden, Esq., commanding U. S. ship Hudson.

The inventors and patentees of this useful instrument are Messrs. Francis B. Ogden, consul for the United States at Liverpool, and Capt. Ericsson, formerly of the Swedish army; both of whom are men well known for their scientific attainments and practical ingenuity.

H. W. O.

MISCELLANY.

CONGRESSIONAL DOCUMENT.

NAVY YARD SOUTH OF CHESAPEAKE BAY.

Letter from the Secretary of the Navy, transmitting a copy of the report of commissioners charged with the examination of harbors south of the Chesapeake Bay, with a view to the establishment of a navy yard.

[February 2, 1837. Read, and laid upon the table.]

NAVY DEPARTMENT.
February 1, 1837.

SIR: In compliance with a resolution of the House of Representatives of the 28th ultimo, I have the honor to transmit, herewith, a copy of the report of the commissioners charged with the examination of ports and harbors south of the Chesapeake Bay, with a view to their comparative advantages for the establishment of a navy yard.

I am, with great respect,
Your obedient servant,
M. DICKERSON.
Secretary of the Navy.

The Honorable the SPEAKER
of the House of Representatives.

The undersigned, commissioners under a resolution of the Senate of the United States, "to survey and examine ports south of the Chesapeake, with a view to the comparative facilities and advantages for the establishment of a navy yard," have the honor to report:

That they have given to the subject all the reflection which its national importance demands; have personally inspected the several ports whose draught of water gave claim to public attention; and have maturely weighed their relative pretensions to the favorable consideration of the Government.

The undersigned, in arriving at a preference for a particular port, have discarded all prejudice of a local or sectional nature, and have solely been influenced by a strict regard to the public good. As a basis for their decision, they have looked to fundamental principles, and have been guided by the great desiderata in a naval establishment on shore. They may be classed under the following heads, and obtain value in the order in which they stand, viz:

1. Sufficient depth of water to permit free access, at any state of tide, for the heaviest class of ships of war.
2. Defence by land and by water.
3. Resources and supplies of every kind for the speedy equipment of fleets.
4. Salubrity at every season of the year.
5. Ample supply of fresh water.
6. Facility for wharfing and docks.

As no port south of the Chesapeake possesses all these advantages, (and, indeed, there is but one in the whole Union which does possess them,) it has become the duty of the undersigned, by the resolution of the Senate to designate that one which seemed to them to have the greater number of approximating qualifications.

CHARLESTON, S. C.

The port of Charleston, being the first in magnitude, and also first in the order of inspection, claimed their primary attention. This harbor has been repeatedly surveyed, and recently by competent officers of the United States army. The chart projected by them has been tested by the undersigned, and the result proved its essential accuracy; from which, together with a naval survey in 1825, and valuable information obtained from experienced pilots and other sources, it would seem to be established that the bar at the mouth of the harbor is the main obstacle to its present usefulness as a naval station; for, being deficient in depth of water,

no vessels larger than sloops of war can pass, and they only at high tides, and with a smooth sea.

This bar, which is of sand, forms an almost continuous chain of breakers, running nearly parallel with the coast for nine or ten miles. The tides and freshets of the river have broken through this barrier, and four channels have been formed for the discharge of the waters. Three of them are now incapable of being navigated by large vessels, and the fourth, the main channel, is liable to great changes from heavy gales. Within twenty years it has been entirely removed from its former site. It is displaced by more than half a mile; and where formerly passed in security ships of seventeen and eighteen feet draught of water, now rolls a dangerous breaker. The undersigned, in contemplating the possible obliteration of the present ship channel by the deposite of some future gale, do not regard it as a lasting injury to the port; for they believe that a new, more convenient, and, perhaps, deeper channel may be effected, by obstructions in the tideway, which shall guide to a given point on the bar the vast and swift column of water composing its freshets and ebbs. Such is observed to be the action presented by the fortification now being erected in the river, which has already, though incomplete and not very extensive, caused, in the opinion of pilots, the overfall channel to be considerably deepened. The effect of so much power, directed on such an easily-moved substance as this bar, when aided by dredging machines, cannot be questioned. The noble harbor within, sufficient in every respect to accommodate a large fleet, and of the heaviest draught, the great seat of southern wealth and southern commerce, all seem to bespeak for it a generous expenditure of the national treasure. But these speculations, whether true or otherwise, belong to the engineer, whose knowledge of currents and their effects will have due weight in such a contingency. Charleston is now considered accessible with a draught of 17 1-2 feet, but with the aid of steam, a good tide, and smooth water, a ship drawing 18 1-2 feet may be safely conducted. The average rise of the tide is six feet, which is increased or diminished by the violence and duration of the seaward or landward winds; and this rise and exterior influence is applicable to all the harbors of the Carolinas and Georgia. There can be no difficulty in obtaining eligible sites for a navy yard, whenever it may be resolved to establish one in Charleston.

BEAUFORT, S. C.

This harbor was surveyed by Lieutenant Stockton in 1828. His report has been tested by soundings and observation, and its general correctness ascertained. The arm of the sea which enters between Hunting and Hilton's islands is known as Port Royal Sound. It is sufficiently deep and capacious to accommodate the largest fleets, but, like all the ports south of the Chesapeake, labors under the disadvantage of having a bar placed at its entrance. From the bar to Beaufort the distance is about 18 miles. A better position for a navy yard can be found in the vicinity of Beaufort than at the town. The bar has an average depth of 17 feet, which permits, with a full tide, the passage of a frigate. Beaufort is placed in the line of internal navigation between Charleston and Savannah, and hence, if blockaded by an enemy by sea, has a safe and speedy transport of supplies. The absence of a fresh-water river and marshes seems to assure as great a degree of health as in any of the southern harbors.

SAVANNAH, GEORGIA.

The bar at the mouth of the Savannah river is the deepest and most accessible of any on the southern coast. The average depth is 19 feet at low water; and hence, with a full tide, a frigate may pass in safety. But although thus favored at the entrance, these advantages are soon lost in ascending the river. The first point of effectual defence, salubrity, and locality for a navy yard is Cockspur Island, situated five miles within the bar, and two miles within the river; but a frigate cannot reach this point by reason of an extensive sand bank half a mile below it, on which but 14 feet, at low water, can be obtained. In ascending still far-

ther up, the shoals are frequent, and of less draught of water; and the river, at first brackish, becomes fresh; and hence, in so low a latitude, and surrounded by marshes, is unhealthy in summer.

Darien, Georgia.

Merchant ships of heavy burd n can enter the port of Darien; but it is unsuitable to naval purposes, by reason of its unfavorable locality, being surrounded by swamps and morasses, and on account of its being placed on a fresh water river, which, in so low a latitude, must cause unhealthiness. The port of Darien can have no greater pretension than the ingress of a sloop of war; and hence cannot compete with the deeper harbors in the same State.

Brunswick, Georgia.

The waters forming the port of Brunswick are generally designated as Turtle river; but, properly speaking, it is an arm of the sea, which, entering between the islands of Jekyl and St. Simon's, flows into the interior for upwards of 20 miles, forming a wide, deep, and swift column. As no fresh water river empties into this basin, it is always salt, free from freshets and alluvial deposites; and hence, from an early period of time, no change whatever has been perceptible in the soundings or general character of the port. From the large islands of St. Simon's and Jekyl, (which are distant from each other about one mile,) and running seaward for six miles, are found jutting two extensive sand-spits. At low water portions of them are laid bare; and unless the sea is unusually smooth, they form, in nearly their whole extent, lines of continuous breakers. Between these lines of surf lies the channel, which is three-quarters of a mile wide between the spit-heads, and which enlarges to a mile soon after entering. Between the spit-heads we found 22 feet at low water. Proceeding towards the land, by traversing the whole breadth of the channel, the soundings gradually shoaled to 18 feet, which is the least draught of water found in the channel-way. About one mile within the spit-heads is the 'middle-ground,' which is a bank of sand resting on the southern or Jekyl spit, and jutting into the channel-way some 200 fathoms; but leaving a sufficiently wide 18 feet passage towards the St. Simon or northern spit, for a large ship even with an adverse wind; the middle ground has but 14 feet at low water. Entering still further up, the soundings gradually grow deeper, so that when between the islands it has obtained a depth of 12 fathoms. The vessel is now in safety. On the right is St. Simon's Sound, which, together with similar water-courses still further north, affords a safe internal navigation to steamboats and craft to Savannah and Charleston. To the left is the arm of the sea, (called the Turtle river,) from which, by Jekyl and Cumberland sounds, is a southern internal navigation as far as St. Mary's. The course from sea to the mouth of the harbor is nearly west-northwest, keeping the northern breakers on board; the channel then runs south and southwesterly, and, making a short turn to the northwest, we arrive at the town of Brunswick—insignificant at present, but destined, we believe, through her rail-road and canal, to future importance. A shoal of soft mud, close to and below the town, on which but 12 feet can be found at low water, seems to indicate some other point in the harbor as a more suitable position for a navy yard. We believe Bythe's Island, on the opposite shore, to be the most eligible. It contains some hundred acres, covered with timber, and every way convenient for wharves, docks, &c., and for a nursery of the live oak; it is distant from Brunswick two miles, and has bold water to within a few fathoms of the shore. There is no doubt that the port may be strongly fortified. The islands of St. Simon and Jekyl present suitable positions for extensive works; and a sand shoal two miles within and in the centre of the river, (dry at low water,) affords a third basis for powerful defence, and steam-batteries will complete the whole. The average rise of the tide is six feet, which gives, at high water, on the bar, 24 feet; sufficient for a frigate. It is deemed healthy, and the absence of a fresh water river, or fresh water swamps, seems to justify the opinion.

ST. MARY'S, GEORGIA.

The harbor of St. Mary's, on the south frontier of Georgia, has a bar very similar to that of Charleston, in its general features and depth of water; it is subject to the same vicissitudes from great gales. In 20 years the ship channel has been forced to the southward; and the site of the passage, where formerly passed the largest sloop of war in the navy, is now filled up to eight feet. Under the most favorable circumstances of wind and tide, the present ship channel may be stated 13 feet at low water; the average rise of the tide is six feet. The localities are unfavorable for the establishment of a navy yard; and, regarding the harbor in every light, we feel compelled to express an opinion adversely of St. Mary's as a port suitable for naval purposes.

KEY WEST AND THE TORTUGAS.

Circumstances beyond our control, and known to the department, have prevented an extension of our survey to Key West and the Tortugas; but our knowledge of those places, obtained in the course of service, justifies us in pronouncing an opinion adverse to them for the establishment of a navy yard.

Key West is but a small island, distant from the main; and the Tortugas, a cluster of islands still smaller. The one can have but limited resources; the other none whatever, not even fresh water. Being *islands*, and incapable of succor in the presence of a superior force, they must eventually fall, when cut off from supplies. The more valuable either might become by the establishment of a navy yard, the more it would invite attack from a powerful enemy. Their position is no doubt commanding, but we deem them not worthy of greater value, when *fortified*, than to afford a rendezvous to our cruisers, and to give shelter and protection to them when pressed by a pursuing enemy.

THE COMPARISON.

The undersigned, in obedience to a resolution of the Senate, have arrived at the point where they are directed to report on "the comparative advantages and facilities of ports south of the Chesapeake, for the establishment of a navy yard." Depth of water and easy access being objects of the first consideration, they are of opinion that the ports of Charleston, Darien, and St. Mary's, being deficient in depth of water to permit the entrance of a larger ship than a sloop of war, are unfit to compete with the frigate harbors of Beaufort, Savannah, and Brunswick.

The preference is narrowed down to one of these; and, having duly weighed their relative pretensions, we have no hesitation in preferring Brunswick. Beaufort must yield to her in the essential points of depth of water, easy access, and capability of defence. Savannah must give way, for her easier access and greater depth of water on the bar cannot be carried up the river to a site safe from the sea and an enemy, and applicable to the establishment of a navy yard.

If a frigate could but reach Cockspur island, the opinion expressed in favor of Brunswick might be recalled. Brunswick is the most southern frigate harbor on the Atlantic seaboard. Placed near the *great outlet* of the commerce of the West Indies and Gulf of Mexico, her position in a state of maritime warfare would be invaluable, since the navigating interests of an enemy must pass by her door. All which is respectfully submitted.

M. T. WOOLSEY,
ALEXR. CLAXTON,
E. R. SHUBRICK.

December 20, 1836.

AMERICAN COLONIZATION IN AFRICA.

Our readers will peruse with much satisfaction the annexed highly gratifying official communication to the Secretary of the Navy, from Captain JOSEPH J. NICHOLSON, of the Navy.

U. S. Ship Potomac,
Rio De Janeiro, *February* 8, 1837.

Sir: I have the honor to inform you that we arrived at Cape Monserado on the 20th of November, whence we sailed for Bassa Cove on the 27th, and to make the following report of its state, as far as I could ascertain from my own observation, the reports of the authorities at Monrovia, and the information derived from the officers of the ship.

Its elevated location was selected with judgment; it may be effectually fortified, and its anchorage is good. The population is about one thousand, and their exports amount to seventy-five thousand dollars annually, in camwood, ivory, palm-oil, and a few hides; but at present their trade is much depressed, in consequence of the wars among the natives. The forests abound with medicinal herbs, gums, and valuable wood of almost every description. About seventy-five vessels touch here annually, of which one-third are Americans. Their agriculture appears to have been neglected, owing, they say, to the pecuniary embarrassment of the people, and the want of cattle and agricultural instruments. Cotton, coffee, indigo, and the richest sugar cane are indigenous to the soil, and with encouragement and industry could be produced in any quantities. The salubrity of the climate is found to increase as the forests are cleared away. Vegetables of many kinds may be raised in plenty; and hogs, sheep, goats, and cows appear to thrive. Fish in abundance are found in the streams, and it is generally admitted that a very comfortable subsistence can be procured by any man of moderately industrious habits. But they complain that want of capital prevents the farmer from *raising a surplus*.

The slave trade within the last three years has seriously injured the colony. Not only has it diverted the industry of the natives in the vicinity from agriculture and trade, but it has effectually cut off the communication with the interior. The war parties being in the habit of plundering and kidnapping for slaves all whom they meet, whether parties to the war or not, the daring of the slaver increases with the demand for slaves, which could not of late be supplied by the usual means. The slavers have, therefore, excited the natives to war, by the distribution of their goods, an appeal to their avarice which is but too successful, and within a year four slave factories have been established almost within sight of the colony. But the colonists say they are deterred from marching to destroy them, by the certain revenge to which their helpless trading vessels are exposed. If the slavers were kept from the coast, which, I am informed, could be effected if the colony possessed an armed vessel, to be manned by their own people, the cause of four-fifths of the wars would be removed, and the natives would return to their peaceful pursuits.

It is complained that many of the emigrants are forced to expend what little capital they have in erecting their buildings, &c., and to resort to petty traffic for immediate subsistence, to the neglect of the slower returns of agriculture; and that the drain of the inhabitants of Monrovia, to form the other settlements, has been a serious obstacle to its growth. Some of the officers who have been here before, tell me that it evidently is not as prosperous as it was at their former visit, which I would ascribe to the neglect of agriculture for the pursuit of trade, which, being now cut off by the native wars, has left them without resources. The traders, too, who arrive upon the coast, fearing no competition, and knowing their necessities, demand exorbitant profits, which are again increased by the traders on shore before the articles reach the consumers, whose earnings are thus absorbed. It appears to me that it would be advantageous to all parties, if the Society should place their public store on such footing as would enable the agents to issue, at a moderate profit, to the colonists the groceries and clothing for which they now pay so dearly, without, however, prejudicing the interests of the

fair trader. The monopolists could not then take advantage of their necessities, and their earnings might be saved to them for the improvement of their lands.

It is important that a greater proportion of farmers be sent among them; for, on the product of the soil by their own labor, must the colonists mainly depend.

Doctor Dodd, the surgeon of this ship, who ascended the river, informs me that, about four miles from Monrovia, on the Stockton river, is the settlement of NEW GEORGIA; it contains about two hundred and fifty inhabitants, recaptured Africans, who are devoted to agriculture. The soil is good, easily cultivated, and amply repays the laborer. This settlement *is certainly in advance of the others* in agriculture. CALDWELL, another of the settlements, is about three miles above New Georgia; it extends about four miles along the south bank of the St. Paul river, and contains about four hundred inhabitants. The soil is good, and in a tolerably good state of cultivation. Thirteen miles from Caldwell is MILLSBURG, finely located on the same river, and flourishing; the soil equally fertile, and the climate more salubrious than the others; it contains about three hundred well-contented inhabitants. The schools at the settlements are generally well attended; the children make very good progress. The morals of the upper settlements generally stand fair.

We arrived at BASSA COVE on the 29th of November, and I have great pleasure in saying, that those who visited the shore were agreeably surprised at the progress that had been made in clearing away the land, laying out streets, draining a fine piece of low grounds, and building houses, as well for the actual settlers as for those who are expected. The present inhabitants are most of the re-united remains of the first settlers, whose defenceless situation had been taken advantage of by the natives to pillage and burn their houses, and murder a number of men, women, and children. The commissioner, Mr. Buchanan, deserves more praise than my report may confer upon him for having re-established them. Eleven months have not elapsed since Bassa Cove was a dense wilderness, and it now exhibits the evidence of a thriving village, and of an industrious people, obedient to the laws, and understanding their interest in maintaining them.

The schools appear to be well attended by the adults and children, of which the necessary good effects will be felt in their moral influence over the natives. The town is beautifully situated on the southern side of the St. John's river, at its mouth, about fifty-five miles southeast of Monrovia; enjoying the sea breeze every day. The Benson river is in its rear, abounding with fish and oysters; and the land in the neighborhood is favorable to agriculture. The population is about one hundred and fifty souls, occupying forty dwelling houses, effectually defended by their well-placed pieces of artillery. Their good understanding with the natives had been occasionally interrupted by the influence of the slavers; but, on the appearance of this ship, all differences were settled by a treaty between Mr. Buchanan and the neighbouring princes, or headmen, obliging themselves to renounce the slave trade for ever, and to be obedient to the laws of the Colony, as far as practicable to their condition.

EDINA is situated on the other side of the mouth of the same river; it contains about two hundred inhabitants, chiefly from Monrovia and the other settlements, and was occupied about four years ago. The inhabitants are industriously disposed, but have made very little progress in developing the resources of the soil, from their passion to traffic with the natives, the prevailing error of most of the settlers. Their exports last year amounted to nearly twelve thousand dollars in camwood, and other articles procured from the natives.

It appears that they are awaking (from the example of Bassa Cove) to a sense of their true interests in the cultivation of the soil, and there will be no doubt of their ultimate success.

We proceeded to CAPE PALMAS, a distance of 220 miles from Cape Monserado, where we anchored on the 15th December, and found HARPER (the name of the town) advantageously situated on the height of the cape, enjoying daily a fine sea breeze, to which, and the cleared land in the vicinity, I would attribute the fact that the settlers have found this place much less unhealthy than the other settlements. They appear to have profited by the errors of the older colonists, in avoiding, as yet, all trade with the natives of the interior, and devoting their whole energies to agriculture. In due time a large and profitable trade in camwood, ivory, rice, and palm-oil, will reward their prudent forbearance. Five thousand bushels of rice, and one hundred and fifty puncheons of palm-oil, I am informed, can now be procured in the season. Beasts of burden are much wanted to lighten the toil of cultivation, and experiments are making with the native oxen, a small breed.

The population is about 190, occupying 54 houses, and arrangements are already made for the reception, in good houses, of 200 more, until they can occupy their farms, which are laid out for about three miles from the cape on each side of the Maryland Avenue.

They have already in cultivation forty-seven farms, generally of five acres, on most of which the proprietors reside; and a model farm of fifty acres, partly under cultivation. The limits of the settlement extend from Rock Town to the Cavally river, a distance of twenty-five miles on the seaboard; up that river forty miles to Dennah, at the head of navigation, where it is intended to strike that river by the Maryland Avenue, and from Rock Town to about fifteen miles in the interior. About five miles of the country may be traversed, in different directions, over good roads.

There are two native towns, of 2,000 inhabitants, between Harper and the farms, under the command of King Freeman; but the colonists appear to be on very good terms with all the kings and people of the neighborhood; and I cannot refrain from expressing my agreeable surprise at the evidence of industry and foresight that were exhibited throughout the settlement—so much have they advanced in solid prosperity in the short space of three years. Its location is decidedly superior to either of the other settlements, in climate and facility of landing. The soil is equally fertile, and the surrounding country as capable of cultivation. Fish and oysters of excellent quality are found in abundance, and vegetables of various kinds may be raised in any quantities.

The ship was visited by King Freeman and King War; the latter is at the head of a powerful tribe in the interior. They were so much astonished at her size, that, for want of language to convey their impressions to their friends, they measured her length and breadth with fishing lines.

The chart erroneously surrounds the cape with rocks: but, on sounding with our boats, we found no danger but the rocks near the shore, which are visible, and a rock bearing N. W. Westerly from the town, about two miles distant, and it may be entered in perfect safety.

The only missionary establishment I had an opportunity of visiting, was that of the Rev. Mr. Wilson, who has about one hundred of the native children of different towns under his charge, and a few adults. I was pleased at the correctness with which many of them read from English books; and, as some of them are the sons of kings, and may be kings themselves in time, it is impossible to foresee the happy effect upon the civilization of the Africans, that may be produced by this school. It is to be regretted that this gentleman has not other missionaries to assist him in his useful labors. The respective colonies being much in want of arms, ammunition, &c. for their defence, received from this ship, in accordance with the instructions from the Department, all the aid that their circumstances seemed to require.

We left Cape Palmas on the 18th of December, and proceeded on our way to Rio de Janeiro, where we arrived yesterday, in twenty days' passage. If I may be allowed to express an opinion, founded on the information and reports of others and my own observation, I would say that it is of the greatest importance to have white agents at the respective settlements, gentlemen of general information and firmness of character. Not only do they command more respect from the kings and natives of the country, but the colonists themselves more readily submit to their government. I would further say that the colonies have now taken firm root in the soil of Africa; and, though they may be depressed at times by adversity, yet, by the gradual development of their resources, and the judicious assistance of their friends, they must finally flourish, to be an asylum to the colored man, and an honor to their founders. I have the honor to be,

Very respectfully,
your obedient servant,
J. J. NICHOLSON, Captain.

To the Hon. M. DICKERSON,
Sec'y of the Navy, Washington.

GALE AT MALAGA, AND NATIONAL CIVILITIES.

[It was our intention to have introduced, under this head, part of a letter received by us from an officer on board H. B. M. ship Orestes, subsequent to the gale of Malaga, on the 2d of January, but substitute the following more minute description by a spectator on the shore, contained in a late number of the Observer. The subjoined letter of Lord Viscount Ingestrie to the Captain of the John Adams—as given by an officer of that ship to a correspondent at home—we record in the pages of our Magazine with the greater pleasure, from the personal knowledge which for years we have enjoyed, of the generous feelings and noble impulses of that youthful and accomplished commander.]

"The harbor of Malaga is formed by its artificial mole, and is exposed, as are likewise those of Gibraltar and Barcelona, to violent tempests from the Mediterranean. In Gibraltar the the wind most to be feared is that from the southwest; a storm from that quarter sometimes occasions fearful destruction of the shipping. In Barcelona, the harbor is protected by its mole from most winds but the east. I have had opportunity already of knowing the meaning of a Levanter, in its most terrific import.

"It began to blow towards the evening of January 2d, though by no means with the promise of so tremendous a tempest as ensued. During the night it increased to a gale, driving in upon the harbor an impetuous, raging sea, and forcing from their anchorage the ships that were exposed to its fury. Early in the morning I walked towards the mole, expecting to behold simply the spectacle of an uncommonly boisterous sea, raised by the night's tempest, and not at all prepared for the terrific and exciting scene, which burst upon me as I emerged from the narrow street, in full view of the harbor. The wind was blowing with such fury, and increasing every moment, that it was with difficulty I could make my egress upon the street of the quay, or maintain a footing there. The sea was raging with great violence, breaking with a strong surf across the middle mole, on which stands the health office, dashing over the lofty wall by which the street is supported from the harbor, and flinging itself in great masses upon the jagged rocks below, with an impetuosity as if it would strike them to the earth's centre. As far out as the eye could reach the waves were rolling in, of a prodigious height, their crested tops scattered into spray and flying in white scud in every direction. From point to point the bay looked as if it were one wide range of breakers, and the shore was lined with people, who could do nothing but gaze upon the spectacle.

"Close upon the jagged rocks, at the end of the shorter mole, the Brit-

ish ship of war Orestes had been dragged from her anchorage, having parted every cable but one, now driving nearer to the rocks with every sea that broke upon them. She was rolling, staggering, and pitching so fearfully, that at times it seemed as if she stood upright upon her bows, and would go down with the mere force of her plunges. One after another her masts were cut away, in the hope of relieving her, and this difficult operation was performed, when nothing else could have saved her, in the most rapid and seaman-like manner. It was successful; and, in this wrecked and perilous condition, she rode out the gale. Further within the harbor, the British frigate Tyne had been also driven from her moorings, and was hourly expected to be thrown upon the rocks, with the almost inevitable destruction of every one on board. She was saved with great difficulty. The sloop of war Jasseur, in a position equally perilous, had thrown overboard her guns, and was pitching with a frightful violence. Schooners, and smaller vessels, were dashing one after another upon the rocks, until the precipitous foundation of the mole-wall was strewn with fragments of the wrecks and cargoes. I saw one schooner broken entirely to pieces, in a rocky angle formed by the street wall and the quay; another flung suddenly upon the rough rocks, near which the Orestes was rolling, and broken as if it had been an egg-shell; and a third thrown against the wall opposite the Jasseur, the crew barely escaping with their lives. The United States ship of war, the John Adams, lay close under the Linterna, or main mole, well sheltered from the sea, and yet so powerfully swept by the wind and waves together, that she broke two of the immense bronze bolts by which the ships are fastened to the mole, when anchored near enough for that purpose.

"This was *a Levanter*. It was altogether a sublime and awful scene: wild, savage, and portentous, in the sky, on the sea, and on the earth. It was a most impressive manifestation of the weakness of man, amidst the strife of the elements, and of the power of that Being who shows 'his wonders in the deep, commanding the stormy wind, which lifteth up the waves thereof.' So great a storm from the Mediterranean has not been experienced here for many years. A violent tempest of the sea is recorded in the annals of the city in 1632, of such prodigious fury, as to make a breach in the mole itself, and partially uncover its foundation."

Extract from a letter of an officer on board the U. S. Ship John Adams.

MALAGA, 11th JAN., 1837.

On the 2d it commenced blowing from the east, about one in the morning, and continued until four in the afternoon when it became a complete hurricane. We had as much as we could do to take care of our fine ship. We sent down every thing to our lower masts, and we received but very trifling injury.

There were three English men-of-war here—one arrived the night before the gale. She had to cut away all her masts, and is otherwise injured. One of the others had to heave over all her guns, and was about cutting away her masts, when the gale abated. The other, the largest of the three, lost her rudder, besides receiving farther damage. Six merchantmen were wrecked, but none of them Americans. Our captain sent his largest boat to the assistance of the ship that was dismasted, and succeeded in getting one of her cables on shore, which was of great service to her.

The following is a copy of a letter received from Lord Ingestrie, who commanded the largest ship:

H. B. M. SHIP TYNE,
Malaga, Jan. 5, 1837.

Sir:—It is with infinite pleasure that I, in the name of the ships of his Britannic Majesty in this port, return to you, your officers, and ship's company, our best thanks for the kind and cheerful assistance you were so good as to give us during our critical

position in the late gale. I have to request that you will have the goodness to make this communication to those under your command.

I have the honor to be, sir, your most obedient, and humble serv't,

INGESTRIE, Captain.

To Capt. SILAS H. STRINGHAM,
U. S. Corvette John Adams.

In the Shipping Gazette of the 9th inst. our correspondent reported that the schooner Perseverance of Brixham, on her voyage from Cadiz to Dublin and Liverpool, had been towed back to Cadiz, by the U. S. frigate Constitution, totally dismasted and a complete wreck. Our Brixham correspondent informs us that a general meeting of the shipping association of that port, held a few days since, at which a resolution of thanks was voted to Commodore Elliott, for his enterprising and disinterested conduct in saving ship and crew. We cheerfully comply with the request made to us by the gentlemen of the association, to publish Commodore Elliott's letter to the British consul at Cadiz, communicating the fact of his having carried the Perseverance into that port, and we are quite sure that the generous sentiments which it breathes will be duly appreciated and responded to, by every British heart:

"U. S. Frigate Constitution,
Dec. 1836.

"Sir—At sea, on the 22d inst., I fell in with a vessel crippled and entirely dismasted. She proved to be the schooner Perseverance, of Dartmouth, Capt. Adams, who had left Cadiz on the 7th, laden with wine, and bound for Liverpool. It blew a strong gale, and I was unable to communicate with her by trumpet or boarding. I veered her a hawser, the prompt acceptance of which on the part of the captain can not but be approved of by all who are interested. A strong east wind prevailing, I took her in tow for Lisbon. The wind came out adverse, the gale shifting, and the sea making a high breach over her, a flag of distress was hoisted; the wind proved more adverse within thirty miles of Lisbon. I bore up for this port, and now take pleasure in bringing the vessel here without further injury, since she was taken in tow. The persevering industry of the captain entitles him to the kind consideration of the owners. It affords me pleasure, sir, to deliver her into your hands, and the more so in being the providential instrument of rendering assistance to a vessel bearing the flag of a nation to whom we are allied by the ties of language, and the many pleasing recollections of mutual intercourse.

I am, very respectfully, sir,
Your obedient servant,
J. D. ELLIOTT.
Commanding the United States
forces in the Mediterranean.

To J. M. BRACKENBURGH, Esq.,
His B. M. consul, Cadiz.

QUARANTINE AT GENOA.

Department of State,
Washington, Feb. 11, 1837.

Extract of a letter from Robert Campbell, Esq., Consular Agent of the United States at Genoa, dated October 3d, 1836, to the Secretary of State:

"I have now to state, that, in consequence of a new decision by our board of health, the following quarantine regulations have been established for vessels arriving at this port.

From the southward of the river Sabine, as far as the Amazon, and including the West Indies:

With foul bill of health and susceptible goods:—25 days for ship and passengers; 33 days for cargo through Lazaretto.

Clean bill of health, and susceptible goods:—15 days for ship and passengers; 23 days for cargo thro' Lazaretto.

Foul bill of health, and non-susceptible goods:—21 days for ship and passengers, cargo being landed during the quarantine.

Clean bill of health, and non-susceptible goods:—12 days for ship and passengers, cargo being landed during the quarantine.

From the northward of the river Sabine as far as Labrador:

With clean bill of health, cer-

tified by any European consul:—5 days of observation, cargo on board.

Without certificate:—10 days of observation, cargo on board.

From Labrador and New Foundland:

Without bill of health:—5 days of observation, with cargo on board.

With bill of health, free pratique.

Cotton, the growth of the United States, received from France and England, accompanied by a certificate that they were originally imported into those countries by vessels with bills of health, will be admitted to free pratique; without such certificate, they will be subject to twelve days for ship and passengers, and twenty on the cottons which must pass through the Lazaretto.

SURVEY OF THE COAST.

The sounding parties are about to recommence their operations in the vicinity of the city, and the detail surveys of the whole harbor will probably be completed during the present season. Our citizens are aware, that the work of which this is a part, is under the superintendence of Professor Hassler, the primary operations being executed by him. The secondary triangulation in our harbor, which gives the bases for the more detailed operations, has been conducted by James Ferguson, assisted by Lieut. J. A. Dahlgren, and Edmund Blunt, assisted by pass'd Midshipman T. J. Page. The topographical part has been in charge of Mr. C. Renard, assisted by passed Midshipman T. A. Jenkins; and the soundings have been performed under the superintendence of T. R. Gedney. The previous operations in this section have been completed during the past season, and the soundings of the outer bay of the Newark bay, and the Channel as far up as Fort Tompkins, are also finished. The work of the present year, under the direction of Lieut. Gedney, will conclude the survey in our immediate neighborhood. Lieutenant Blake, with several co-operating parties, is at present engaged in finishing the hydrographic part of the survey, from New Haven to Throgg's Neck, where he will be met by Lieut. Gedney. In the course of the season, it is expected that the main operations will be extended southward to the Delaware; and, in the year following, it is intended to commence southward of the Chesapeake, and operate northward. The whole coast will, therefore, soon be covered.—*Ev'g Post.*

Valuable Statistics of the Whale Fishery from different ports of the United States to the Pacific Ocean.

The Boston Atlas, of the 10th of April, furnishes a comprehensive tabular view of this important branch of American enterprise, from which we learn that (exclusive of all ships engaged in the common or *right* whale fishery) on the 1st of January last, Nantucket had 67 ships; New Bedford, 92; Fair Haven, 19; Bristol, R. I., 10; Hudson, N. Y., 8; Newport, R. I., 7; Warren, R. I., 7; Edgartown, Mass., 7; Salem, 6; New London, Conn., 5; Falmouth, Mass., 5; Sag Harbor, L. I., 4; Poughkeepsie, N. Y., 4; Newburgh, N. Y., 3; Wilmington, Del., 3; Newburyport, Mass., 3; Boston, 2; Fall River 2; Newark, N. J., 2; Portland, Maine, 1; Wiscasset, 1; Wareham, 1; Providence, 1; Dartmouth, 1; Stonington, 1; New-York, 1.

At sea, total, 266 ships—

Of which 34	sailed in		1833,
66	"	"	1834,
75	"	"	1835,
81	"	"	1836.

Total, 266.

The number of men employed at present in this branch of the whale fishery is nearly ten thousand, and the immense capital necessary to its successful prosecution is about seven millions of dollars! Those ships which have been fitted out during the last two years, have sailed at an expense far exceeding any previous outfits, but few being now sent to sea at a less cost than $40,000; many, in fact, reached $50,000, and some even upwards of $60,000. Since the year 1814, the total import of sper-

maceti oil at Nantucket, and other ports in the United States, reached the immense quantity of one million four hundred and thirty-three thousand and ninety two barrels!!

The imports of 1835 alone was 178,000 barrels; and that of 1836, 128,441 barrels.

The common or right whale fishery employs more ships; but the voyages are fitted out at a much less cost, being performed in shorter time, usually in less than a year.

SANDWICH ISLANDS.

The New-Bedford Gazette contains extracts from the Sandwich Island Gazette to October 22. Every thing appears to be quiet at the islands, and the natives progressing in civilization and the arts of peace. The news of the mediation of England in settling our difficulties with France had just been received, and the President's message, accepting of the mediation, is published.

The Gazette of the 15th October notices the arrival of the French ship of war La Bonite, and the sailing of the United States sloop of war Peacock for home, and complains of the want of authority, or of disposition, in the American naval officers to redress grievances. Com. Downes had several conferences with the King and Chiefs, but, according to the editor of the Gazette, they all resulted in nothing.—*Cour. & Enq.*

NAVAL INTELLIGENCE.

SQUADRON IN THE WEST INDIES.

Letter from Captain Mix to Colonel Webb.

U. S. Ship Concord,
MATANZAS, April 10, 1837.

Captain Mix's respects to Colonel Webb, and acquaints him with the arrival here, on the 7th instant, of the U. S. ship *Concord*, last from Havana. He has heard of no acts of piracy, or improper interference with our commerce to this island. The political state of Cuba is now perfectly quiet, and all the interests of the island are rapidly advancing under the energetic and enlightened control and direction of her Captain-General, Tacon.

The Concord will sail in a few days for Pensacola, via Havana and the coast of Florida. The following is a list of her officers, which please publish, with any part of this note, viz:—

Commander, Captain M. P. Mix. *Lieutenants*, H. A. Adams, Thos. J. Leib, Saml. C. Munn, C. H. A. H. Kennedy, Jas. P. McKinstry. *Surgeon*, Mifflin Coulter. *Purser*, Nathl. Wilson. *Professor of Mathematics*, B. McGowen. *Passed Midshipmen*, George M. White, C. F. M. Spotwood. *Midshipmen*, Thos. B. Barret, Wilmer Shields, Wm. M. Caldwell, —— Doyle. *Captain's Clerk*, G. F. Sawyer. *Boatswain*, S. Stanly. *Gunner*, B. Bunker. *Sail Maker*, John Briggs.—*Courier and Enquirer.*

The U. S. ship Natches, Captain Mervine, sailed from Vera Cruz 3d April for Tampico, Galveston, &c.

We learn from a gentleman from Pensacola, which place he left the 14th inst., that the U. S. ship Constellation, Com. Dallas, and sloop of war Boston, Lieut. Com. Engle, were lying in that port—the latter to sail in a few days on a cruise in the Gulf—officers and crews of both vessels all well. The schr. Grampus, Lieut. Com. McIntosh, was daily expected.

BRAZILLIAN SQUADRON.

The U. S. schr. Porpoise, commander McKenney, by the last intelligence, had reached Rio de Janeiro.

We give the following outline of her cruise on the coast of Africa:—

OFFICIAL.

Extracts from letters received from Lieut. Wm. E. McKenney, commander of U. S. brig Dolphin.

U. S. Brig DOLPHIN,
RIO NUNEZ, Dec. 27, 1836.

SIR: I had the honor to report to the department from Madeira, my arrival at that place upon the 18th November. Having filled up with provisions and water, I sailed thence on the 25th for the river Gambia, where I arrived on the 9th instant, and anchored off the town of Bathurst, at the mouth of the river.

After the usual salute, I waited upon his Excellency Governor Randall, whom I found not only disposed, but anxious, to give me every information respecting the American commerce at that place.

There were no American vessels there at the time, but he informed me that fifteen or sixteen traded there yearly, and that they were admitted on the same footing as British vessels; namely, subject to a duty of three per cent. upon all goods, indiscriminately. He was anxious to see them there, and would give them, as he always had, every encouragement.

Having found our affairs in so favorable a state, I left there on the 11th for Bissao.

At the mouth of the Gambia boarded the American brig Elizabeth, bound in.

I arrived at Bissao on the 15th, the American ship Transit, of Bath, Maine, in company, and found there the brig May Dacre, of Salem.

From Mr. Potter, her owner, I learned that the principal difficulties existed at the Rio Nunez, and that at Bassao our trade was on the same footing as at Bathurst.

The day previous a new governor had arrived from Lisbon, upon whom I waited, and was assured by him that our traders might depend upon his protection, and that the same commercial facilities should be extended to American vessels equally with those of his own nation.

The object of my visit accomplished, I left Bissao on the 18th for the Rio Nunez, the brig May Dacre in company.

The navigation from Bissao to this place is very intricate, and dangerous in the extreme—the passage being narrow, filled with rocks and shoals, and the current setting in every direction. I had no chart of the coast about the mouth of the river, it being very imperfectly known, and was compelled to trust altogether to a native pilot. On entering the river he ran the brig on shore, but I succeeded in getting her off in a very short time, and, so far as I am able to perceive, without any material injury.

On the 22d I anchored at the mouth of this river, and as the brig drew too much water to allow my proceeding up to the settlements, I issued to Lieut. Ogden a letter of instructions, and he departed immediately in company with the May Dacre.

On the 26th Lieut. Ogden returned, having accomplished all that could be wished for.

It will be perceived that I have not been actuated by any motives other than the protection of our citizens in their lawful commerce; and from the representations made me of the character of the King, I deemed it necessary to take such a stand as that he would be convinced that our government was resolved to protect their vessels trading there, and to prevent them from impositions heretofore practised upon them.

The trade upon the coast, from the rivers Gambia to Nunez, is very valuable, and there are at least thirty vessels regularly trading at and between these places; yet such is the treachery of the native chiefs, that to the full protection of our commerce it would be necessary that some vessel of war should visit these places during the trading season, which is from November to April.

I shall leave this place immediately, and shall proceed to execute the remaining instructions of the department.

Owing to the light winds which prevail upon this coast at this season of the year, I shall not be able to leave for the coast of Brazil before

the middle of February, and shall consequently be compelled to put into Sierra Leone for provisions—that being the only place where there is any probability of procuring them.

It affords me great pleasure to state the officers and crew are in good health.

I have the honor to be,
Your obedient servant,
WM. E. MCKENNEY, Lt. Com.
Hon. the Secretary of the Navy.
Washington City, D. C.

—

U. S. Brig DOLPHIN,
SIERRA LEONE, Jan. 4, 1837.

SIR: My last letter to the Department was dated "Rio Nunez, December 27, 1836," and contained a report of my proceedings up to that time.

I sailed thence the day following, arrived here on the 1st inst., filled up with water and provisions, and shall leave this place to-morrow for Cape Mesurado, Bassa Cove, and Cape Palmas, to execute the further instructions of the Department.

I have the honor to be,
Your obedient servant,
WM. E. MCKENNEY.
Hon. the Secretary of the Navy.
Washington City, D. C.

—

THE INDEPENDENCE.

This noble ship, which has been recently reduced at the Navy Yard at Charlestown from a 74 to a double banked frigate, is now lying in the stream, and will sail in a few days for Cronstadt, and carry out Mr. Dallas, Minister to Russia, and family, and, having landed them, will proceed to Brazil, and become the Flag Ship of the American squadron on that station. The Independence is now one of the most elegantly-modelled, commodious, and efficient ships in the navy. She has a battery of sixty 32 pounders, viz., thirty long guns on the main deck, and an equal number of medium length on her spar deck. She is pierced for 64 guns, and her stern ports may, in an exigency, be readily converted into a battery, by changing the position of the aft or bow guns. The aggregate weight of the guns on the main deck is 1767 cwt., and on the spar 1505 cwt. Her length is 200 feet, beam 52, depth from spar deck to hold 30, depth between beams and main deck 6 feet and an inch, an amount of space which will be of the highest utility during an engagement—mainmast 115, and mainyard 105—and the same suit of sails which she carried when a seventy-four.

Her ammunition consists of 4000 round shot, 32 s, 700 hags grape do., and 100 canisters do.; 16,000 lbs. cannon powder; 2000 lbs. priming do., and 120 pistols, 120 muskets, and 200 cutlasses. Her guns require 11 lbs. of powder to a charge, and each half division delivers 160 lbs. of metal at a discharge. The weight of her anchors are 760 cwt., 740 do., 710 and 690 do. Her draft at present is 22 feet 1 inch aft, and 22 feet 5 inches forward. She is strongly built, but not without the strictest observance of neatness and whatever could contribute to substantial comfort, and she will no doubt become one of the greatest favorites in the navy. There are already upwards of 600 men on board, including a detachment of marines.

The following is a list of her officers:—

Commodore, JOHN B. NICOLSON. *Lieutenants*, Alexander Slidell, John Pope, James L. Lardner, Amasa Paine, Henry K. Hoff, Charles H. Davis, Charles M. Armstrong, Wm. H. Noland, Charles H. Poor, Edward R. Thompson. *Sailing Master*, Theodore P. Green. *Surgeon*, Waters Smith. *Passed Asst. Surgeon*, Wm. M. Wood. *Asst. do.*, A. J. Bowie. *Purser*, Thos. Breese. *Chaplain*, Rev. Mr. Wiltbank of the Episcopal Church. *Commodore's Secretary*, James McBlair. *Clerk*, Littleton Polk. *Purser's Clerk*, Samuel Hooper. *Passed Midshipmen*, Samuel Larkin, Charles W. Morris, Montfort S. Stokes, Nathaniel G. Bay, Richard S. Tilghman, James H. Strong. *Midshipmen*, Wm. A. Parker, Strong B. Thompson, Albert G. Clary, Washington Gwathmey, James Riddle, John C. Henry, Benj. S. Garret, John Brooks, John B. Decatur, Isaac N. Morris, James W. Ripley, Thomas H. Stevens,

Edw. Beale, Robert Wyman, Henry A. Clemson. *Boatswain*, James Springer. *Gunner*, Thomas Robinson. *Sail Maker*, M. Whitney. *Carpenter*, John Green.—*Trans.*

The U. S. ship Fairfield, Commander Mayo, sailed last evening from the naval anchorage, bound to the coast of Brazil. The wind was light and adverse, and at dusk she was off Lambert's Point.—*Norfolk Beacon Saturday, April 29th.*

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MEDITERRANEAN SQUADRON.

The Flag Ship Constitution, Com. Elliott; the Frigate United States, and Schooner Shark, were at Port Mahon, on the 16th of March.

List of Officers attached to the John Adams.—Commander, Silas H. Stringham, *Lieutenants*, C. Ringgold, I. S. Sterett, E. M. Vail, and J. M. Watson. *Acting Master*, W. P. Griffin. *Purser*, D. Mc. F. Thornton. *Surgeon*, B. R. Tinslar. *Passed Assistant Surgeon*, Geo. Clymer. *Passed Midshipmen*, J. B. Marchand, J. W. Cooke, J. E. Brown. *Midshipmen*, W. Ronckendorff, F. A. Bacon, C. R. Howard, J. J. Guthrie, S. Smith, and W. C. Brashears, *Acting*. D. Lambert, *Acting Boatswain*. James Storer, *Acting Carpenter*. George Thomas, *Sailmaker*.

The gunner, David Taggart, died off Cape de Gatt on the 13th instant.

Letter from an Officer of the Frigate United States.

U. S. Frigate United States,
Smyrna, Jan, 25, 1837.

"I send you a complete list of the officers now on board. We are quite well, considering the inclement season. The weather is uncommonly severe, the snow covering all the neighboring hills. We have lost only one man, since we left the United States.

"During this winter, this ship has visited Malta, Athens, Syra, and this place; and we expect to be in Mahon in March. So far our cruising has been confined to the Levant. During the summer, we visited Syria, Palestine, and Egypt, and most of our officers went to Balbec and Jerusalem.

List of Officers on board the U. S. frigate United States.—Jesse Wilkinson, Esq., *Captain*. *Lieutenants*, Z. F. Johnston, J. A. Davis, W. D. Porter, B. J. Totten, C. G. Hunter. *Surgeon*, G. R. B. Horner. *Passed Assistant Surgeons*, S. Barrington, J. B. Elliot. *Purser*, D. Walker. *Chaplain*, T. R. Lambert. *Acting Master*, C. Heywood. *Lieutenant of Marines*, B. E. Brooke. *Passed Midshipmen*, W. H. J. Robertson. D. F. Dulany, H. S. Stellwagen, J. Humphreys, F. E. Barry, C. Thomas. *Midshipmen*, A. Mc Lane, W. C. Craney, C. S. Macdonough, M. Hunt, J. Todd, G. H. Preble, A. S. Whittier, J. R. M. Mullany, A. H. Cass, H. F. Porter. *Captain's Clerk*, Robert Robertson. *Boatswain*, W. Hart. *Gunner*, S. Allen. *Carpenter*, R. Thomas, *Sailmaker*, J. C. O'Connor.

The United States frigate Potomac, captain Nicholson, has arrived at Norfolk, from the Mediterranean, via the coast of Africa and Brazil. On the 31st of December, at Bassa Cove, a boat from the Potomac capsized on the bar, by which accident midshipman Alexander H. Wells and Peter Eynaud, purser's steward, and seven men, were drowned.

The editors of the Baltimore American say that intelligence has been received from J. B. Russworm, Esq., governor of the new colony of Maryland, representing the state of things at Cape Palmas as the most gratifying to its friends. The details are to be given to the public forthwith.

The following is a list of the officers attached to the Potomac at the time of her arrival.—*Commander*, Joseph J. Nicholson, Esq., *Lieutenants*, Joseph B. Hull, John S. Chauncey. R. A. Jones, Henry Pinckney. *Master*, George B. Minor. *Lieutenant of Marines*, W. Marsdon. *Purser*, Garret R. Barry. *Passed Midshipmen*, J. T. McDonough and A. M. Pennock. *Surgeon*, R. W. Dodd. *Assistant Surgeons*, J. Lockwood and R. T. Barry. *Midshipmen*, Eugene Boyle, William A. Wayne, Geo. Colvocoressis, John B. Randolph, Joseph Barney, John V.

Hickson, M. C. Perry, J. Q. Adams, William H. Macomb, Isaac K. You. Rufus S. Wey, Frederick Pepin. *Captain's Clerk*, Charles Rockwell. *Boatswain*, J. Ryder. *Gunner*, W. Brown. *Carpenter*, W. S. Shuttleworth. *Sail Maker*, William Ward.

PACIFIC SQUADRON.

Arrival of the Brandywine.—The U. S. frigate Brandywine, Captain Deacon, bearing the broad pendant of Commodore Wadsworth, 93 days from Callao, anchored in Hampton Roads, on Saturday, the 22d of April—officers and crew generally well.

We learn that the Chilian blockading squadron, under command of Admiral Blanco, was lying in the harbor of Callao; the Admiral waiting instruction from his government. Every thing was tranquil in the interior when the Brandywine sailed.

Santa Cruz continued at the head of affairs in Peru; and would probably remain so.

We regret to learn that passed midshipman Augustine W. Prevost, (late of schr. Boxer) died of consumption, on board the Brandywine, on his return to the United States.

The U. S. schr. Boxer, Lieut. Com. Page, was at Callao 18th January—all well.

The Brandywine has been absent thirty-five months, having sailed from Hampton Roads, 20th June, 1834.

We subjoin a list of her officers. —*Commodore*, Alex'r. Wadsworth. *Captain*, David Deacon. *Lieutenants*, Wm. Inman, Henry Bruce, G. J. Van Brunt. *Passed Midshipmen acting Lieutenants*, S. F. Hazard, G. A. Prentiss, Robt. Hardy. *Surgeon*, A. B. Cooke. *Assistant Surgeon*, John T. Sickles. *Acting Master*, Charles Green; 2d do. E. M. Yard. *Commodore's Secretary*, Edwin Vallette. *Passed Midshipmen*, W. B. Ludlow, Luther, Stoddard, J. J. White. *Midshipmen*, Francis Lowry, Jas. L. Parker, C. H. Piper, J. W. Read, C. J. Vannalstine, Samuel Pearce, Benjamin R. Nicholls, Geo. Doty, Wm. P. McArthur, Wm. P. Gamble, Wm. A. Bartlett, L. B. Avery, Benjamin T. Wilson, C. St. George Noland, W. L. Blanton, D. D. Henri, C. R. Smith, R. B. Reid. *Captain of Marines*, C. C. Tupper; *Lieutenant* do., G. W. Robbins. *Captain's Clerk*, T. C. Royall. *School Master*, John Pierce, Jr. *Purser's Clerk*, David McComb. *Boatswain*, John Ball. *Gunner*, David James. *Carpenter*, Charles Boardman. *Sail Maker*, J. R. Child. *Master's Mates*, Thos. Curry, Lloyd Slemmer.

Officers of the U. S. schr. Boxer, in the Pacific.—*Lieut. Commanding*, Hugh N. Page. *Lieutenants*, C. H. Jackson, Peter Turner, Cicero Price. *Midshipmen*, C. M. Robertson, John J. Patterson.

PROMOTIONS IN MARCH, 1837.

Master Commandants.—William M. Hunter, John D. Sloat, Matthew C. Perry, Charles W. Skinner, John T. Newton, Joseph Smith, Lawrence Rousseau, George W. Storer, Beverly Kennon, and Edward R. Shubrick, to be Post Captains.

Lieutenants.—J. Gwynn, T. W. Wyman, Andrew Fitzhugh, Abraham S. Ten Eick, John White, Hiram Paulding, Jona. D. Williamson, Uriah P. Levy, Charles Boarman, French Forrest, Wm. E. McKenney, William J. Belt, William Jamesson, William Boerum, Chas. L. Williamson, Charles Gauntt, William Ramsay, Ralph Voorhees, Henry Henry, to be Commanders.

Passed Assis't. Surgeons.—William Whelan, Samuel Barrington, Thomas L. Smith, Geo. Blacknall, H. N. Glenthworth, Lewis B. Hunter, to be Surgeons.

Passed Midskipmen.—William Radford, Samuel F. Hazard, John M. Berrien, George A. Prentiss, John C. Sharpe, John C. Carter, George Hurst, Alfred Taylor, Samuel P. Lee, John P. Gillis, Joseph W. Jarvis, Simon B. Bissel, Samuel Swartwout, John J. Glasson, S. T. Gillet, R. Semmes, Jr., J. F. Miller, James P. McKinstry, William A. Wurts, Henry A. Steele, John M. Gardner, Spencer C. Gist, Charles Heywood, Alex. C. Maury, Oliver

S. Glisson, John A. Dahlgren, Stephen C. Rowan, Edward R. Thomson, J. T. McDonough, G. Ganse-voort, Wm. Lambert, Harry P. T. Wood, Wm. Ward, Robert Handy, Henry Darcantel, Burritt Shepard, Charles Green, Edward L. Handy, Melancton Smith, Francis Huger, and William C. Chaplin, to be Lieutenants.

RECENT APPOINTMENTS.

Assistant Surgeons.—J. Dickerson Miller, Augustus J. Bowie, Richard W. Leecock, Charles F. B. Guillou, John L. Fox, John S. Messersmith, John J. Abernethy.

Chaplain.—Rev. James Wiltbank.

MARRIAGE.

At Philadelphia, on Monday the 27th inst., Charles Crillon Barton, U. S. Navy, to Anna, eldest daughter of Hugh F. Hollingshead, Esq., of that city.

DEATHS.

In Cheshire, Conn., in December last, Josephine, only child of Lieut. Andrew H. Foot, of the U. S. Navy.

In Philadelphia, Clement S. Huntt, Esq., purser of that station, and the oldest officer of his class in the navy. An amiable man, and of exemplary character in his official capacities.

In Brooklyn, after a most painful illness, Silas Butler, Esq., purser in the navy, a gentleman of urbanity and intelligence, estimable in all the social and domestic relations of life, of great enterprise and industry in business, and a faithful and a correct servant of the government. He was one of the earliest members of the U. S. Naval Lyceum.

At Port Mahon, Island of Minorca, on 29th of November last, after a lingering illness, which he bore with the most perfect resignation, John Holly Smith, First Lieutenant of the U. S. frigate United States.

At Washington city, on Saturday, the 15th of April, Catharine Maria Chauncy, only daughter of Commodore Isaac Chauncy, of the United States Navy.

[*For the Naval Magazine.*]

SONG OF THE SAILOR'S BETROTHED.

"I do love nothing in the world so well as you.
Is not that strange?"

Thy step is free, thy heart is high, thou hast a lofty brow,
The mountain eagle's fearless breast is scarce untamed as thou;
Thy home, the sea—the restless sea—and thine, the haughty joy,
With all its might of billowy foam, exultingly to toy.

I love the bees, I love the flowers, for they are gentle things—
And the minstrel birds of summer morn, that flit on golden wings;
I love my green and sunny home;—yet thou, all reckless, free,
Hast stolen away my heart—my heart—wild wanderer of the sea!

I know that soon thy gallant bark will bear thee far away,
Careering as the kestrel-bird amid the flood and spray;
And from her jubilant deck shall come the sailor's song of pride,
"With chainless hearts, we wed the sea; the sea—the sailor's bride."

The sportive girls of orient climes will braid for thee their hair,
And with their lightsome music-lays, enrich the spicy air;
Perchance their thousand smiles and wiles will then be prized by thee!
Oh give me back my heart—my heart—wild wanderer of the sea!

Yet wayward is that ocean's breast with all its frolic sheen,
And many a dark and angry mood the sailor's bark hath seen;
The island girls that lightly love, as lightly will forget,
And soon will wreathe, for other eyes, their radiant locks of jet.

And should I love thee not, then who would watch the sunny sky,
To tremble at each shadowy cloud that fleets in beauty by?
And nightly to the ocean's Lord would kneel and pray for thee?
Take—take with thee, my heart—my heart—wild wanderer of the sea!

H. L. B.

Elizabethtown, N. J., 1837.

METEOROLOGICAL OBSERVATIONS FOR THE MONTH OF FEBRUARY, 1836.

Made at the U. S. Naval Hospital, N. Y. Station. Com. C. G. Ridgely, Commander; Wm. Turk, Surgeon. Long. 74° W. Lat. 40° 42′ N. Var. 4° 26′ W.

Moon	Day of the Mth.	Wk	Thermometer ☉ R.	Noon	☉ S.	Barometer ☉ R.	Noon	☉ S.	Wind Direction ☉ R.	Noon.	☉ S.	Wind Force ☉ R.	Noon	☉ S.	Weather ☉ R.	Noon.	☉ S.	Rain Q'nt'ty	Remarks
◐	1	W.	35	42	36	29.63	29.53	29.50	S. S. E.	S. W.	S. W.	light	light	light	cloudy	cloudy	fair		Situation of instruments unchanged.
	2	T.	26	30	25	29.67	29.64	29.64	W.	W.	W.	light	fresh	fresh	fair	fair	fair		Feb. 5. Slight fall of snow.
	3	F.	15	22	26	29.74	29.82	29.82	N. W.	N. W.	N. W.	fresh	fresh	mod.	fair	fair	fair		7. Rain in the night.
	4	S.	24	30	29	29.90	29.99	29.99	E.	N. E.	N. E.	light	light	light	cloudy	fair	cloudy		8. Snow in the night 3 inches.
	5	C.	26	33	26	30.08	30.11	30.13	E. N. E.	N. E.	N. E.	mod.	light	light	cloudy	cloudy	cloudy		12. High wind in the night.
	6	M.	26	32	32	30.08	30.11	30.11	N.	N. W.	E.	light	light	light	cloudy	fair	fair		14. Slight rain in the night.
	7	T.	28	34	32	29.94	29.74	29.62	S. W.	S. W.	W. S. W.	light	light	light	cloudy	cloudy	foggy		15. Rain in the night.
●	8	W.	34	35	30	29.44	29.52	29.55	N.	N. E.	N. N. E.	mod.	mod.	light	cloudy	cloudy	cloudy		16. High wind, with rain, and snow in the night.
	9	T.	19	26	20	29.78	29.82	29.80	N.	N.	N.	mod.	mod.	mod.	fair	fair	fair		17. Slight fall of snow this morning and afternoon.
	10	F.	13	33	23	29.73	29.73	29.72	N. W.	N. W.	S. W.	mod.	mod.	light	fair	fair	fair		20. Rain in the night.
	11	S.	23	38	29	29.86	29.92	29.91	S. W.	S. W.	W. S. W.	light	light	light	fair	fair	fair		23. Began to snow this morning, turned to rain about 9 o'clock, A. M., and continued all day.
	12	C.	20	42	31	29.84	29.72	29.57	W. S. W.	S. E.	S. W.	light	mod.	light	fair	fair	fair		27. Commenced raining this afternoon, turned to snow in the night, with very high wind.
	13	M.	14	13	8	29.73	29.93	30.11	N. W.	N. W.	N. W.	strong	strong	strong	fair	fair	fair		Fair days, 12; rain on 8; snow on 6.
	14	T.	4	24	23	30.28	30.17	30.06	W.	S. W.	S. W.	mod.	light	light	fair	fair	cloudy		Prevailing wind, N. W.
◑	15	W.	31	36	35	29.77	30.20	29.61	S.	S. W.	S. W.	light	light	light	cloudy	cloudy	foggy		
	16	T.	31	39	33	29.64	29.66	29.51	W.	N. E.	N. E.	light	light	light	foggy	cloudy	rain		
	17	F.	28	22	20	29.11	29.33	29.54	N. E.	N. W.	N.	fresh	mod.	mod.	cloudy	cloudy	cloudy		
	18	S.	3	15	13	30.03	30.13	30.11	N. W.	N. W.	W.	mod.	mod.	mod.	fair	fair	fair		
	19	C.	12	29	27	30.08	30.07	30.03	W. N. W.	W. S. W.	W. S. W.	mod.	mod.	mod.	fair	fair	fair		
	20	M.	24	38	32	29.92	29.84	29.80	S. E.	W. S. W.	S. E.	light	light	light	cloudy	fair	fair		
	21	T.	30	36	33	29.52	29.56	29.75	N.	N.	N. W.	light	light	light	rain	cloudy	cloudy		
	22	W.	28	38	33	30.07	30.08	30.06	N. W.	W. S. W.	W. S. W.	light	light	light	fair	fair	fair		
☉	23	T.	31	34	33	29.84	29.45	28.07	N. E.	N. E.	N. N. E.	light	fresh	light	snow	rain	rain		
	24	F.	35	38	32	29.16	29.49	29.68	N. W.	N. W.	N. W.	fresh	fresh	fresh	cloudy	fair	fair		
	25	S.	27	40	32	29.70	29.72	29.72	W. N. W.	W.	S. W.	mod.	light	light	fair	fair	fair		
	26	C.	28	38	32	29.93	30.03	29.99	N. W.	N. W.	S. E.	mod.	mod.	light	fair	fair	fair		
	27	M.	33	43	36	29.75	29.61	29.26	S. E.	S. E.	S. E.	light	light	light	cloudy	cloudy	rain		
	28	T.	20	24	19	29.21	29.57	29.68	N. W.	N. W	N. W.	fresh	fresh	fresh	cloudy	fair	fair		

RESULT.

THERMOMETER.

Mean temperature for the month	28°
Highest ditto on the 27th at mer.	43
Lowest ditto on the 18th at S. R.	3
Greatest daily variation, on the 12th	22
Least ditto, on the 23d	3
Range	40

BAROMETER. Inches.

Mean atmospheric pressure for the month	29.765
Highest ditto, on the 14th, at S. R.	30.280
Lowest ditto, on the 23d, at S. S.	28.070
Greatest daily variation, on the 23d	1.770
Least ditto, on the 10th	.010
Range	2.210

METEOROLOGICAL OBSERVATIONS FOR THE MONTH OF MARCH, 1837.

Made at the U. S. Naval Hospital, N. Y. Station. Com. C. G. Ridgely, Commander; Wm. Turk, Surgeon. Lon. 74° W. Lat. 40° 42′ N. Var. 4° 26′ W.

Moon	Day of the Mth.	Week	Thermometer R	Noon	S.	Barometer R	Noon	S.	Wind Direction R	Noon	S.	Wind Force R	Noon	S.	Weather R	Noon	S.	Rain Q'n'ty.
	1	W.	12	27	23	29.95	30.02	30.06	W.	N. W.	N. W.	light	light	light	fair	cloudy	fair	
	2	T.	13	29	21	30.24	30.25	30.15	N. E.	N. E.	S. E.	light	light	light	cloudy	cloudy	cloudy	
	3	F.	15	24	18	30.18	30.11	30.15	N. E.	N. W.	N. W.	light	light	light	cloudy	fair	fair	
	4	S.	7	20	17	30.25	30.27	30.25	N. W.	N.	S. W.	mod.	mod.	mod.	fair	fair	fair	
	5	B.	18	31	25	30.15	30.04	30.05	N. E.	W. S. W.	S. W.	light	light	light	fair	fair	fair	
●	6	M.	19	33	29	30.25	30.24	30.15	N. E.	S. W.	S. E.	light	light	light	fair	fair	fair	
	7	T.	30	45	33	30.08	30.08	30.04	N. E.	N. E.	N. N. E.	light	light	light	fair	cloudy	cloudy	
	8	W.	34	41	40	30.02	29.98	29.92	N. E.	E.	S. E.	light	light	light	cloudy	rain	rain	
	9	T.	40	43	38	29.91	29.93	29.98	N. N. E.	N.	N.	light	light	light	foggy	cloudy	cloudy	
	10	F.	32	43	35	30.07	30.13	30.13	N.	N.	N.	light	light	mod.	cloudy	fair	fair	
	11	S.	28	37	34	30.24	30.28	30.26	N.	N.	N.	light	light	light	fair	fair	fair	
	12	B.	27	41	33	30.26	30.19	30.08	E. N. E.	S. E.	S. E.	light	light	light	fair	fair	cloudy	
◐	13	M.	34	55	49	29.92	29.77	29.57	N. E.	N. E.	S. E.	light	light	light	cloudy	cloudy	rain	
	14	T.	43	42	34	29.58	29.78	29.94	W.	N. W.	N. W.	fresh	fresh	fresh	fair	fair	fair	
	15	W.	24	40	30	30.10	30.00	30.06	N.	S.	S. W.	mod.	light	light	cloudy	fair	fair	
	16	T.	24	33	28	30.24	30.27	30.23	N.	S. W.	S.	light	light	light	fair	fair	fair	
	17	F.	28	43	36	30.23	30.18	30.05	W. S. W.	S. W.	W. S. W.	light	light	mod.	fair	fair	fair	
	18	S.	36	57	44	29.76	29.58	29.39	S. S. W.	S. W.	S. W.	light	light	mod.	cloudy	hazy	rain	
	19	B.	31	38	30	29.57	29.63	29.75	W.	N. W.	N. W.	fresh	fresh	fresh	fair	fair	fair	
	20	M.	25	40	32	29.95	29.94	29.87	N.	S. E.	S. E.	light	light	light	cloudy	cloudy	fair	
	21	T.	33	44	38	29.92	29.95	29.92	N. E.	N. E.	N. E.	light	mod.	light	cloudy	cloudy	rain	
◌	22	W.	43	44	34	29.61	29.58	29.58	N. E.	N. E.	N. E.	fresh	fresh	strong	rain	rain	rain	
	23	T.	34	40	38	29.66	29.70	29.84	N. E.	N. E.	N. N. E.	mod.	fresh	mod.	rain	rain	cloudy	
	24	F.	34	54	42	30.02	30.03	30.03	N. E.	W. N. W.	N.	light	light	light	fair	fair	cloudy	
	25	S.	33	46	43	30.02	29.98	29.92	N. N. W.	W. S. W.	S.	light	light	light	fair	fair	fair	
	26	B.	37	46	39	29.97	29.98	29.95	N.	E. S. E.	S.	light	light	light	fair	fair	fair	
	27	M.	36	55	42	29.88	29.84	29.77	S. E.	N. E.	E. S. E.	light	light	light	cloudy	cloudy	fair	
	28	T.	37	50	44	29.65	29.60	29.43	N. E.	N. N. W.	E.	light	light	light	foggy	cloudy	cloudy	
◑	29	W.	36	39	38	29.62	29.67	29.75	N. W.	N. W.	N. W.	light	fresh	mod.	fair	fair	fair	
	30	T.	27	42	34	29.98	30.00	29.95	N. W.	N. W.	S. W.	mod.	mod.	light	fair	cloudy	cloudy	
	31	F.	32	46	35	29.94	29.96	29.74	S. E.	S. E.	S. E.	light	light	mod.	cloudy	cloudy	rain	

REMARKS

THE INSTRUMENTS UNCHANGED.

March 3. Snow in the night.
13. Showers this morning; commenced raining at 2 P. M. ceased in the night.
18. Commenced raining this afternoon, ceased in the night.
21. Commenced raining this afternoon, ceased on the afternoon of the 23d.
26. Slight rain in the night.
27. Slight rain in the night.
28. Rain, with lightning and thunder, in the night.

Quantity of rain, 8.73 inches.
Fair days, 11. Rain on 14. Snow on 1.
Electrical phenomena on 1.
Prevailing wind, N. E.

RESULT.

THERMOMETER.

Mean temperature for the month	34
Highest on the 18th at M.	57
Lowest on the 4th at sunrise	7
Greatest daily variation on the 13th and 18th	21
Least do. on the 29th	3
Range	50

BAROMETER. Inches.

Mean atmospheric pressure for the month	29.958
Highest on the 11th at M.	30.280
Lowest on the 18th at sunset	29.390
Greatest daily variation on the 18th	370
Least do. on the 24th	10
Range	280

NAVAL REGISTER,

CORRECTED TO THE 1st OF APRIL, 1837.

BY

L. B. HARDIN, ESQ.

REGISTER OF THE NAVY.

OFFICE OF THE SECRETARY OF THE NAVY.

NAME.	DUTY.	When appointed.		Salary.
Mahlon Dickerson,	Secretary,	1 July,	1834	$6,000
John Boyle,	Chief Clerk,	June,	1813	2,000
John D. Simms,	Corresponding Clerk,	5 April,	1827	1,600
Lauriston B. Hardin,	Register,	1 May,	1831	1,400
Abraham H. Quincy,	Cor. and Rec. Clerk,	10 Aug.	1832	1,400
Moses Poor,	Register of Corresp.	27 Jan.	1834	1,000
Borden M. Voorhees,	Warrant Clerk,	9 July,	1834	1,000
Henry Stark,	Corresponding Clerk,	28 Nov.	1833	1,000
N. Burke Boyle,	Rec. and Copy'g do.	1 Nov.	1836	800
Thomas L. Ragsdale,	Cl. of Pen. Funds, &c.	7 July,	1834	1,600
Nathan Eaton,	Messenger,	12 July,	1821	700
Lindsay Muse,	Assistant Messenger,	1 Jan.	1829	350

OFFICE OF THE NAVY COMMISSIONERS.

John Rodgers,	Presid't of the Board,	1 Oct.	1827	3,500
Isaac Chauncey,	Commissioner,	5 June,	1833	3,500
Charles Morris,	Do.	13 July,	1832	3,500
Chs. W. Goldsborough,	Secretary,	10 Nov.	1823	2,000
William G. Ridgely,	Chief Clerk,	23 Nov.	1823	1,600
John Green,	Clerk,	28 June,	1814	1,150
James Hutton,	Do.	20 July,	1822	1,000
Jno. H. Reiley,	Do.	1 Nov.	1836	1,000
E. J. Hume,	Do.	1 June,	1836	1,000
Jos. P. McCorkle, Jr.	Do.	1 Oct.	1832	1,000
C. Schwarz,	Draftsman,	30 Aug.	1820	1,000
Richard Elliott,	Messenger,	22 Feb.	1827	700

CAPTAINS, in Number 50.

	NAME.	Date of pres't Commission.	Duty or Station.
	John Rodgers	5 Mar. 1799	President Navy Board
	James Barron	22 May, do.	Com'dt N. Yard Philadelphia
	Charles Stewart	22 April, 1806	Waiting orders
	Isaac Hull	23 do. do.	Leave of absence
5	Isaac Chauncey	24 do. do.	Commissioner Navy Board
	Jacob Jones	3 Mar. 1813	Comd'g Naval Officer, Balt.
	Charles Morris	5 do. do.	Commissioner Navy Board
	Lewis Warrington	22 Nov. 1814	Com'dt N. Yard, Norfolk
	Wm. M. Crane	24 do. do.	Com'dt N. Yard, Portsmouth
10	James Biddle	28 Feb. 1815	Waiting orders
	Charles G. Ridgely	do. do.	Com'dt N. Yard, New-York
	Daniel T. Paterson	do. do.	Com'dt N. Yard, Washington
	Melanc. T. Woolsey	27 April, 1816	Waiting orders
	J. Orde Creighton	do. do.	Waiting orders
15	John Downes	5 Mar. 1817	Com'dt N. Yard, Boston
	Jesse D. Elliott	27 Mar. 1818	Com'dg Mediter'n Squadron
	Stephen Cassin	3 Mar. 1825	Waiting orders
	James Renshaw	do. do.	Com'dg Brazillian Squadron
	Alex. S. Wadsworth	do. do.	Com'dg Pacific Squadron
20	George C. Read	do. do.	Waiting orders
	Henry E. Ballard	do. do.	App. to com. Pacific Squadron
	David Deacon	24 Jan. 1826	Com'dg Frigate Brandywine
	Samuel Woodhouse	3 Mar. 1827	Waiting orders
	Joseph J. Nicholson	do. do.	Leave of absence
25	Edmund P. Kennedy	24 April, 1828	Com'dg Naval Force E. Ind.
	Alexander J. Dallas	do. do.	Com'dg W. India Squadron
	John B. Nicolson	do. do.	App. to com. Brazi'n Squadron
	Jesse Wilkinson	11 Mar. 1829	Com'dg Frigate United States
	T. ApCatesby Jones	do. do.	App. to com. sur. and expl. exp.
30	Wm. Compton Bolton	21 Feb. 1831	Com'dg N. Yard, Pensacola
	William B. Shubrick	do. do.	Insp'r of Ord'nce & Ammu'n
	Alexander Claxton	do. do.	Waiting orders
	Charles W. Morgan	do. do.	Waiting orders
	Lawrence Kearney	20 Dec. 1832	Com'r. for testing medium guns
35	Foxhall A. Parker	3 Mar. 1835	Waiting orders
	Edw. R. McCall	do. do.	Waiting orders
	Daniel Turner	do. do.	Waiting orders
	David Conner	do. do.	Waiting orders
	John Gallagher	22 Dec. do.	Waiting orders
40	Tho. Holdup Stevens	27 Jan. 1836	Waiting orders
	Wm. M. Hunter	9 Feb. 1837	Waiting orders
	John D. Sloat	do. do.	On spec. duty connected w'h the establishm't
	Matthew C. Perry	do. do.	do. do. do. [of Light Houses.
	Charles W. Skinner	do. do.	Waiting orders
45	John T. Newton.	do. do.	Waiting orders [expl. expe.
	Joseph Smith	do. do.	On spec. duty con'ct'd with the
	Lawrence Rousseau	do. do.	Leave of absence
	George W. Storer	do. do.	Waiting orders
	Beverly Kennon	do. do.	Waiting orders
50	Edw. R. Shrubrick	do. do.	Waiting orders

COMMANDERS, in Number 50.

	NAME.	Date of pres't Commission.	Duty or Station.
	George Budd	28 Mar. 1820	Waiting orders
	F. H. Gregory	24 April, 1828	Waiting orders
	John H. Clack	do. do.	Rendezvous, Norfolk
	P. F. Voorhees	do. do.	Waiting orders
5	Benjamin Cooper	do. do.	Waiting orders
	David Geisinger	11 Mar. 1829	Comd'g Rendezvous, Boston
	Robert F. Stockton	27 May, 1830	Furlough
	Isaac McKeever	do. do.	Rendezvous, Baltimore
	John P. Zantzinger	3 Mar. 1831	Navy Yard, Norfolk
10	William D. Salter	do. do.	Rendezvous, New-York
	Chas. S. McCauley	do. do.	Navy Yard, Philadelphia
	Thos. M. Newell	do. do.	Waiting orders
	Elie A. F. Valette	do. do.	Rendezvous, Philadelphia
	William A. Spencer	do. do.	Navy Yard, New-York
15	Thomas T. Webb	do. do.	Leave of absence
	John Percival	do. do.	Navy Yard, Boston
	John H. Aulick	do. do.	Waiting orders
	William V. Taylor	do. do.	Waiting orders
	Mervine P. Mix	do. do.	Comd'g Sloop Concord
20	Bladen Dulany	do. do.	Comd'g Sloop Boston
	Silas H. Stringham	do. do.	Comd'g Sloop John Adams
	Isaac Mayo	20 Dec. 1832	Comd'g Sloop Fairfield
	Wm. K. Latimer	2 Mar. 1833	Navy Yard, Pensacola
	William Mervine	12 June, 1834	Comd'g Sloop Natchez
25	Thomas Crabb	3 Mar. 1835	Comd'g Sloop Vandalia
	Edw. B. Babbit	do. do.	Waiting orders
	Thomas Paine	do. do.	Comd'g Sloop St. Louis
	James Armstrong	do. do.	Comd'g Frigate Macedonian
	Joseph Smoot	do. do.	Navy Yard, Washington
30	Sam. L. Breese	22 Dec. do.	Waiting orders
	Benj. Page, Jr.	do. do.	Waiting orders
	John Gwinn	9 Feb. 1837	Waiting orders
	Thomas W. Wyman	do. do.	Waiting orders
	Andrew Fitzhugh	do. do.	Waiting orders
35	Abraham S. Ten Eick	do. do.	Waiting orders
	John White	do. do.	Waiting orders
	Hiram Paulding	do. do.	'n spec. duty con'et'd w'h the establishm't of [Light Houses.
	Jona. D. Williamson	do. do.	Waiting orders
	Uriah P. Levy	do. do.	Waiting orders
40	Chas. Boarman	do. do.	Waiting orders
	French Forrest	do. do.	Recruit'g for expl. exp. in D. C.
	Wm. E. McKenney	do. do.	Comd'g Brig Dolphin
	Wm. J. Belt	do. do.	Waiting orders
	Wm. Jamesson	do. do.	Waiting orders
45	Wm. Boerum	do. do.	Frigate Constitution
	Chas. L. Williamson	do. do.	Waiting orders
	Charles Gauntt	do. do.	Waiting orders
	William Ramsay	do. do.	Waiting orders
	Ralph Voorhees	do. do.	Waiting orders
50	Henry Henry	do. do.	Waiting orders

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
	James P. Oellers	24 July, 1813	Ordinary, Philadelphia
	1814.		
	Charles E. Crowly	9 Dec. 1814	Waiting orders
	Wm. A. C. Farragut	do. do.	Pascagoula, sick
	Stephen Champlin	do. do.	Invalid
	1817.		
5	Samuel W. Downing	5 Mar. 1817	Waiting orders
	Henry W. Ogden	do. do.	Comd'g Rec'g Ship, N. York
	Ebenezer Ridgeway	do. do.	Waiting orders
	Thomas A. Conover	do. do.	On Furlough
	John C. Long	do. do.	Waiting orders
10	John H. Graham	do. do.	Waiting orders
	1818.		
	James M. McIntosh	1 April, 1818	Comd'g Schr. Grampus
	Josiah Tattnall	do. do.	Comd'g Barque Pioneer
	Hugh N. Page	do. do.	Comd'g Schr. Boxer
	William Inman	do. do.	Frigate Brandywine
15	Joel Abbot	do. do.	Waiting orders
	Lewis E. Simonds	do. do.	Leave of absence
	John M. Dale	do. do.	Waiting orders
	H. H. Cocke	do. do.	Waiting orders
	Wm. J. McCluney	do. do.	Waiting orders
20	J. B. Montgomery	do. do.	Comd'g Rec'g Ship, Boston
	Horace B. Sawyer	do. do.	Waiting orders
	C. K. Stribling	do. do.	Sloop Peacock
	Joshua R. Sands	do. do.	Rendezvous, New-York
	1820.		
	John J. Young	28 Mar. 1820	Sup't Navy Hospital, Norfolk
25	Charles H. Bell	do. do.	Leave of absence
	Abraham Bigelow	do. do.	Leave of absence
	Frank Ellery	do. do.	Rendezvous, New-York
	Fredrick Varnum	do. do.	Rec'g Ship, New-York
	Joseph R. Jarvis	do. do.	Navy Yard, Portsmouth, N. H.
30	Thomas W. Freelon	do. do.	Rendezvous, Boston
	James Williams	do. do.	Waiting orders
	Sam. W. LeCompte	do. do.	Waiting orders
	Charles T. Platt	do. do.	Waiting orders
	1821.		
	Wm. M. Armstrong	3 Mar. 1821	Comd'g Rec'g Ship, Norfolk
35	Wm. F. Shields	do. do.	Waiting orders
	G. J. Pendergrast	do. do.	Waiting orders
	Wm. C. Nicholson	do. do.	North Carolina 74
	1822.		
	James B. Cooper	22 April, 1822	Naval Asylum, Philadelphia
	1825.		
	E. W. Carpender	13 Jan. 1825	Navy Yard, Boston
40	John L. Saunders	do. do.	Rendezvous, Norfolk
	Joseph B. Hull	do. do.	Leave of absence

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
	John Stone Paine	13 Jan. 1825	Waiting orders
	John E. Prentiss	do. do.	Waiting orders
	Joseph Morehead	do. do.	Rendezvous, Philadelphia
45	Thomas Petigru	do. do.	Waiting orders
	John S. Chauncey	do. do.	Leave of absence
	Irvine Shubrick	do. do.	Comd'g Rec'g vessel Phila'a
	John Kelley	do. do.	Leave of absence
	Edmund Byrne	do. do.	On duty testing medium guns
50	Edward S. Johnson	do. do.	Waiting orders
	William H. Gardner	do. do.	Navy Yard, Washington
	David G. Farragut	do. do.	Waiting orders
	Richard S. Pinckney	do. do.	Leave of absence
	Stephen B. Wilson	do. do.	Rec'g Ship, New-York
55	Edward C. Rutledge	do. do.	Waiting orders
	William S. Harris	do. do.	Waiting orders
	Tho. Aloysius Dornin	do. do.	Comd'g Store Ship Relief
	Robt. B. Cunningham	do. do.	Navy Yard, Norfolk
	James Glynn	do. do.	Comd'g Barque Consort
60	Joseph Myers	do. do.	Leave of absence
	William C. Wetmore	do. do.	Waiting orders [of the coast
	Thomas R. Gedney	do. do.	Comd'g Schr. Jersey, on surv'y
	John Bubier	do. do.	Ordinary, Boston
	Victor M. Randolph	do. do.	Furlough
65	Jacob Crowninshield	do. do.	Leave of absence
	Frederick Engle	do. do.	Frigate Constellation
	Alex. J. Dallas	do. do.	Rec'g Ship, Boston
	John Rudd	do. do.	Waiting orders
	Robert Ritchie	do. do.	Recruiting for Explo'g Exp'n
70	William W. McKean	do. do.	Navy Yard, Philadelphia
	Franklin Buchanan	do. do.	Comd'g Rec'g vessel, Balt.
	Samuel Mercer	do. do.	Navy Yard, Philadelphia
	Chas. Lowndes	do. do.	Waiting orders
	L. M. Goldsborough	do. do.	Waiting orders
75	George N. Hollins	do. do.	Comd'g Schr. Enterprise
	D. N. Ingraham	do. do.	Leave of absence
	John Marston, Jr.	do. do.	Waiting orders
	Henry Bruce	do. do.	Frigate Brandywine
	William D. Newman	bo. do.	Waiting orders
80	Henry A. Adams	do. do.	Sloop Concord
	Alex. B. Pinkham	do. do.	Leave of absence
	James D. Knight	do. do.	Waiting orders
	Joseph Mattison	do. do.	Waiting orders
	William S. Walker	do. do.	Waiting orders
85	Alexander Slidell	do. do.	Razeé Independence
	George F. Pearson	do. do.	Comd'g Schr. Shark
	1826.		
	James T. Gerry	28 April, 1826	Leave of absence
	John S. Nicholas	do. do.	Leave of absence

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
	Samuel F. Dupont	28 April, 1826	Leave of absence
90	William L. Hudson	do. do.	Navy Yard, New-York
	Wm. H. Campbell	do. do.	Waiting orders
	James P. Wilson	do. do.	Navy Yard, Pensacola
	George A. Magruder	do. do.	Macedonian
	John Pope	do. do.	Razeé Independence
95	Levin M. Powell	do. do.	Sloop Vandalia [Instru'ts
	Charles Wilkes, Jr.	do. do.	In charge of Depôt of Nautic'l
	Elisha Peck	do. do.	Sloop Natchez
	John A. Carr	do. do.	Leave of absence
	Thomas J. Manning	do. do.	Leave of absence
100	William Pearson	do. do.	Waiting orders
	William L. Howard	do. do.	Sloop Concord
	William P. Piercy	do. do.	With the army in Florida
	Richard A. Jones	do. do.	Rendezvous, Baltimore
	Thomas J. Leib	do. do.	Sloop Concord
105	William G. Woolsey	do. do.	Ordinary, New-York
	William H. Kennon	do. do.	Waiting orders
	Arthur Lewis	do. do.	Waiting orders
	1827.		
	John W. West	3 Mar. 1827	Leave of absence
	T. O. Selfridge	do. do.	North Carolina 74
110	R. R. Pinkham	do. do.	Recruiting for expl. expe.
	Henry Eagle	do. do.	Sloop Erie
	A. K. Long	do. do.	Recruiting for expl. expe.
	G. J. Van Brunt	do. do.	Frigate Brandywine
	Henry Pinkney	do. do.	Leave of absence
115	Wm. M. Glendy	do. do.	North Carolina 74
	John H. Little	do. do.	Rendezvous, Baltimore
	George P. Upshur	do. do.	Leave of absence
	George S. Blake	do. do.	Comd'g Schr. Experiment on
	Z. F. Johnson	do. do.	F. United States [coast sur.
120	William Green	do. do.	Sloop Peacock
	Samuel Barron	do. do.	Rendezvous, Norfolk
	Timothy G. Benham	do. do.	Sloop Natchez
	Robert W. Jones	do. do.	Navy Yard, New-York
	Alex. G. Gordon	do. do.	Frigate United States
125	A. G. Slaughter	do. do.	North Carolina 74
	E. A. Downes	do. do.	Rendezvous, Boston
	Oscar Bullus	do. do.	Frigate Constitution
	John Marshall	do. do.	Furlough
	Charles H. Jackson	do. do.	Schooner Boxer
130	Andrew A. Harwood	do. do.	Schooner Shark
	Theo. Bailey, Jr.	do. do.	Recruiting for expl. expe.
	H. Y. Purviance	do. do.	Sloop Fairfield
	George Adams	do. do.	Leave of absence
	1828.		
	Cad'r Ringgold	17 May. 1828	Sloop John Adams

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
135	John Graham	17 May, 1828	Leave of absence
	Wm. F. Lynch	do. do.	Leave of absence
	Henry W. Morris	do. do.	Barque Pioneer
	Isaac S. Sterett	do. do.	Sloop John Adams
	Francis B. Ellison	do. do.	Navy Yard, New-York
140	Edward B. Boutwell	do. do.	Rec'g Ship, Norfolk
	James T. Homans	do. do.	Furlough
	John E. Bispham	do. do.	Sloop Fairfield
	Sidney Smith Lee	do. do.	Waiting orders
	Wm. C. Whittle	do. do.	On duty testing medium guns
145	John H. Marshall	do. do.	Leave of absence
	Richard H. Morris	do. do.	Furlough
	Thompson D. Shaw	do. do.	Rendezvous, Philadelphia
	Robert D. Thorburn	do. do.	Sloop Boston
	Samuel Lockwood	do. do.	Frigate Macedonian
150	Lloyd B. Newell	do. do.	Leave of absence
	John Cassin	do. do.	Leave of absence
	Hillary H. Rodes	do. do.	Frigate United States
	William S. Ogden	do. do.	Brig Dolphin
	Frederick A. Neville	do. do.	Waiting orders
155	John W. Mooers	do. do.	Sloop Vandalia
	Edmund M. Russell	do. do.	Leave of absence
	Hampton Westcott	do. do.	Frigate United States
	Charles C. Turner	do. do.	Sloop Peacock
	Joseph Stallings	do. do.	Schooner Grampus
160	John Manning	do. do.	Waiting orders
	James L. Lardner	do. do.	Razeé Independence
	1830.		
	Robert G. Robb	27 May, 1830	Waiting orders
	Edward M. Vail	do. do.	Leave of absence
	Fitz Allen Deas	do. do.	Sloop Boston
165	John Colhoun	do. do.	Frigate Constitution
	Chas. W. Chauncey	do. do.	Sloop John Adams
	Law. Pennington	do. do.	Leave of absence
	Thomas T. Craven	do. do.	Waiting orders
	Andrew H. Foot	do. do.	Waiting orders
170	John L. Ball	do. do.	Frigate Constellation
	William W. Hunter	do. do.	Frigate Constellation
	1831.		
	N. C. Lawrence	3 Mar. 1831	Leave of absence
	Amasa Paine	do. do.	Razeé Independence
	Nathaniel W. Duke	do. do.	Furlough
175	Edward G. Tilton	do. do.	Sloop Fairfield
	James H. Ward	do. do.	Sloop St. Louis
	Henry K. Hoff	do. do.	Razeé Independence
	Jonathan Ingersoll	do. do.	Furlough
	Grey Skipwith	do. do.	Waiting orders
180	Murray Mason	do. do.	Schooner Enterprise

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
	Charles H. Davis	3 Mar. 1831	Razeé Independence
	Stephen Johnston	do. do.	Frigate Constellation*
	Jonathan W. Swift	do. do.	Leave of absence
	Chas. M. Armstrong	do. do.	Razeé Independence
185	Ebenezer Farrand	do. do.	Leave of absence
	Henry H. Bell	do. do.	Sloop St. Louis
	William Smith	do. do.	Sloop Vandalia
	Charles H McBlair	12 July, do.	Leave of absence
	James M. Watson	30 Dec. do.	Frigate Constitution
	1832.		
190	John W. Turk	21 June, 1832	Navy Yard, New-York
	Junius J. Boyle	do. do.	Rect'g for Brazillian squadron
	William E. Hunt	do. do.	Leave of absence
	Gurden C. Ashton	do. do.	Waiting orders
	Robert L. Browning	do. do.	Leave of absence
195	Jona. D. Ferris	13 July, do.	Leave of absence
	A. B. Fairfax	do. do.	Waiting orders
	Neil M. Howison	do. do.	Sloop Boston
	William B. Lyne	do. do.	Rec'g Ship, Norfolk
	Peter Turner	20 Dec. do.	Schooner Boxer
	1833.		
200	John A. Davis	27 Feb. 1833	Frigate Constitution
	Henry K. Thatcher	28 Feb. do.	Waiting orders
	James H. Rowan	31 Dec. do.	Sloop Erie
	Samuel E. Munn	do. do.	Sloop Concord
	William H. Noland	do. do.	Razeé Independence
205	Wm. D. Porter	do. do.	Frigate United States
	Charles H. Duryee	do. do.	North Carolina 74
	William McBlair	do. do.	Ordinary at New-York
	George M. Hooe	do. do.	Waiting orders
	Jno. S. Missroon	do. do.	Leave of absence
210	James Noble	do. do.	North Carolina 74
	1834.		
	Richard L. Page	26 Mar. 1834	Sloop Peacock
	Frederick Chatard	29 Mar. do.	Sloop Vandalia
	Gab'l G. Williamson	do. do.	Waiting orders
	Benj. J. Totten	do. do.	Schooner Shark
215	Owen Burns	8 April, do.	Waiting orders
	Harry Ingersoll	do. do.	North Carolina 74
	Alex. H. Marbury	23 June, do.	Waiting orders
	H. M. Houston	24 June, do.	Waiting orders
	Charles G. Hunter	do. do.	Frigate United States
	1835.		
220	Arthur Sinclair	3 Mar. 1835	Recruiting for expl. expe.
	Edwin W. Moore	do. do.	Sloop Boston
	Robert B. Hitchcock	do. do.	Leave of absence

* Commanding temporarily the steamer America, co-operating with the army in Florida.

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.		Duty or Station.
	C. H. A. H. Kennedy	3 Mar.	1835	Frigate Constellation
	Thomas W. Brent	do.	do.	Schooner Shark
225	George M. Bache	do.	do.	Waiting orders
	Ezra T. Doughty	do.	do.	Leave of absence
	Joseph Lanman	do.	do.	Navy Yard, New-York
	John W. Cox	do.	do.	Schooner Grampus
	John K. Mitchell	22 Dec.	do.	Sloop St. Louis
230	Thomas Turner	do.	do.	Frigate Macedonian
	Henry Moor	do.	do.	Sloop Natchez
	Charles H. Poor	do.	do.	Razeé Independence
	Jas. Findlay Schenck	do.	do.	Sloop St. Louis
	John B. Cutting	do.	do.	Leave of absence
	1836.			
235	T. M. Washington	12 Jan.	1836	Waiting orders
	Lewis G. Keith	17 Mar.	do.	Waiting orders
	Matthew F. Maury	10 June,	do.	Waiting orders
	Timothy A. Hunt	7 Dec.	do.	North Carolina 74
	Sylvanus Wm. Godon	do.	do.	Sloop Peacock
240	James S. Palmer	do.	do.	Leave of absence
	1837.			
	Wm. Radford	9 Feb.	1837	Waiting orders
	Samuel F. Hazard	do.	do.	Frigate Brandywine
	John M. Berrien	do.	do.	Ordinary, Norfolk
	George A. Prentiss	do.	do.	Frigate Brandywine
245	John C. Sharpe	do.	do.	Leave of absence
	John C. Carter	do.	do.	Waiting orders
	George Hurst	do.	do.	Frigate United States
	Alfred Taylor	do.	do.	Sloop Erie
	Sam. Phillips Lee	do.	do.	Waiting orders
250	John P. Gillis	do.	do.	Leave of absence
	Joseph W. Jarvis	do.	do.	Sloop Fairfield
	Simon B. Bissell	do.	do.	Waiting orders
	Samuel Swartwout	do.	do.	Schooner Grampus
	John J. Glasson	do.	do.	Waiting orders
255	Samuel T. Gillet	do.	do.	Furlough
	Raphl. Semmes, Jr.	do.	do.	Leave of absence
	James F. Miller	do.	do.	Leave of absence
	James P. McKinstry	do.	do.	Sloop Concord
	Wm. A. Wurts	do.	do.	Waiting orders
260	Henry A. Steele	27 Feb.	1837	Frigate Constitution
	John M. Gardner	8 Mar.	do.	Sloop St. Louis
	Spencer C. Gist	do.	do.	Leave of absence
	Charles Heywood	do.	do.	Schooner Shark
	Alex. C. Maury	do.	do.	Waiting orders
265	Oliver S. Glisson	do.	do.	Sloop Fairfield
	John A. Dahlgren	do.	do.	On survey of the coast
	Stephen C. Rowan	do.	do.	Store ship Relief
	Edw. R. Thomson	do.	do.	Razeé Independence

LIEUTENANTS, in Number 280.

	NAME.	Date of pres't Commission.	Duty or Station.
	J. T. Macdonough	8 Mar. 1837	Leave of absence
270	Guert Gansevoort	do. do.	Sloop Boston
	Wm. Lambert	do. do.	On survey of the coast
	Wm. Ward	do. do.	North Carolina 74
	Robert Handy	do. do.	Frigate Brandywine
	Henry Darcantel	do. do.	Frigate Constitution
275	Burritt Shepard	do. do.	Waiting orders
	Charles Green	do. do.	Frigate Brandywine
	Edw. L. Handy	do. do.	Waiting orders
	Melanchton Smith	do. do.	Sloop Natchez
	Francis Huger	do. do.	Sloop Fairfield
280	Wm. C. Chaplin	do. do.	Waiting orders

SURGEONS, in Number 50.

	NAME.	Date of pres't Commission.	Duty or Station.
	Jonathan Cowdery	27 Nov. 1804	Rendezvous, Norfolk
	Wm. P. C. Barton	28 June, 1809	Navy Yard, Philadelphia
	Thomas Harris	6 July, 1812	Naval Asylum, Philadelphia
	William Turk	24 July, 1813	Naval Hospital, New-York
5	John A. Kearney	do. do.	Co-operating with army in Fl.
	Bailey Washington	do. do.	Fleet Surgeon, Mediterran'n
	William Swift	15 April, 1814	App. fleet surgeon Pacific
	Thomas B. Salter	22 May, 1815	Navy Y'd, Portsmouth, N. H.
	Peter Chyristie	27 April, 1816	Rendezvous, New-York
10	Samuel Jackson	27 Mar. 1818	Navy Y'd & Hosp. Wash'n
	Andrew B. Cooke	do. do.	Fl et sur'n, Pacific, on his return to the U.S.
	Lenoard Osborne	do. do.	Fleet surgeon, West Indies
	Thomas Williamson	do. do.	Naval Hospital, Norfolk
	George S. Sproston	do. do.	Baltimore station
15	Benajah Ticknor	10 July, 1824	Navy Yard, Boston
	Mordecai Morgan	do. do.	Rendezvous, Philadelphia
	Thomas J. Boyd	do. do.	Waiting orders.
	James Cornick	5 Mar. 1825	Navy Yard, Norfolk
	Charles Chase	3 May, do.	Fleet surgeon, coast of Brazil
20	D. S. Edwards	5 May, do.	Sloop St. Louis
	Isaac Hulse	6 May, do.	Leave of absence
	John S. Wiley	9 May, do.	Rendezvous, Boston
	George Terrill	22 May, 1826	Waiting orders
	John Halsett	23 May, do.	Navy Yard, New-York
25	Waters Smith	3 Jan. 1828	App. Fleet surgeon for the coast of Brazil, & ordered to the Independence.
	Benjamin F. Bache	do. do.	Leave of absence
	A. A. Adee	do. do.	Naval Hosp. Chelsea, Mass.
	Thomas Dillard	do. do.	Waiting orders
	Stephen Rapalje	4 Dec. do.	Waiting orders

SURGEONS, in Number 50.

	NAME.	Date of pres't Commission.	Duty or Station.
30	James M. Greene	4 Dec. 1828	Waiting orders
	John R. Chandler	do. do.	Sloop Natchez
	B. R. Tinslar	do. do.	Sloop John Adams
	William Plumstead	do. do.	Sloop Vandalia
	George W. Codwise	do. do.	Waiting orders
35	G. R. B. Horner	4 April, 1831	Frigate United States
	W.S.W. Ruschenberger	do. do.	Fleet surgeon, East Indies
	Samuel W. Ruff	do. do.	Leave of absence
	William Johnson	do. do.	Leave of absence
	Samuel Moseley	do. do.	Waiting orders
40	Robert J. Dodd	do. do.	Leave of absence
	Wm. Fairlie Patton	do. do.	Naval Hosp. Pensacola
	Henry S. Coulter	4 Nov. 1834	Waiting orders
	John F. Brooke	do. do.	Sloop Natchez
	Mifflin Coulter	22 Dec. 1835	Sloop Concord
45	William Whelan	9 Feb. 1837	Rec'g ship, Boston
	Samuel Barrington	do. do.	Frigate United States
	Thomas L. Smith	do. do.	Schooner Boxer
	George Blacknall	do. do.	Waiting orders
	Horatio N. Glentworth	do. do.	Sloop Boston
50	Lewis B. Hunter	do. do.	Leave of absence

PASSED ASSISTANT SURGEONS, in Number 20.

	NAME.	Date of pres't Commission.	Duty or Station.
	John C. Spencer	16 Dec. 1828	Leave of absence
	George Clymer	1 July, 1829	Sloop John Adams
	Isaac Brinckerhoff	do. do.	North Carolina 74
	William M. Wood	16 May, do.	Razeé Independence
5	J. Vaughan Smith	27 June, do.	Brig Dolphin
	Jones W. Plummer	20 June, do.	Frigate Constellation*
	George B. McKnight	16 May, do.	Co-operat'g with army in Fl.
	Solomon Sharp	15 Sep. do.	Sloop Natchez
	Daniel Egbert	22 Aug. do.	Schooner Shark
10	A. G. Gambrill	20 June, 1829	Receiving ship, New-York
	Wm. A. W. Spotswood	2 Dec. 1828	Frigate Constellation
	John B. Elliott	20 May, 1829	Frigate United States
	Jona. M. Foltz	4 April, 1831	Navy Yard, Washington
	John C. Mercer	8 Feb. 1832	Naval Hospital, Norfolk
15	Sam. C. Lawrason	do. do.	Navy Yard, Norfolk
	Edward Gilchrist	26 Jan. 1832	Naval Hospital, Boston
	Lewis Wolfley	21 June, do.	Waiting orders
	Lewis W. Minor	8 Feb. do.	North Carolina 74
	Robert M. Baltzar	do. do.	Leave of absence
20	William J. Powell	do. do.	Leave of absence

* On board the steamer Major Dade temporarily.

ASSISTANT SURGEONS, in Number 30.

	NAME.	Date of pres't Commission.	Duty or Station.
	Hugh Morson	4 April, 1831	Waiting orders
	Wm. L. Van Horn	do. do.	Barque Pioneer (temporarily)
	John A. Lockwood	8 Feb. 1832	Leave of absence
	Daniel C. McLeod	do. do.	Leave of absence
5	J. Frederick Sickels	28 Feb. 1833	Frigate Brandywine
	Napoleon C. Barrabino	do. do.	Navy Yard, Philadelphia
	M. G. Delaney	do. do.	Naval Hospital, New-York
	Henry S. Rennolds	do. do.	Naval Hospital, Pensacola
	Wm. F. Clenahan	do. do.	Schooner Enterprise
10	Daniel S. Green	18 Oct. do.	Naval Asylum, Philadelphia
	James C. Palmer	26 Mar. 1834	Rendezvous, Baltimore
	Ninian Pinkney	do. do.	Sloop Erie
	Robert T. Barry	do. do.	Leave of absence
	George W. Peete	2 May, do.	Navy Yard, Norfolk
15	George W. Evans	30 June, do.	Sloop St. Louis
	Thomas A. Parsons	4 Nov. do.	Steamer American (temp.)
	Charles A. Hassler	do. do.	Sloop Vandalia
	John R. Peckworth	do. do.	North Carolina 74
	Robert Woodworth	23 Feb. 1835	Frigate Constitution
20	Wm. W. Valk	do. do.	Navy Yard, Pensacola
	David Harlan	do. do.	Sloop Peacock
	Victor L. Godon	do. do.	Frigate Constitution
	Alex. J. Wedderburn	22 Dec. do.	Frigate Constellation
	J. Dickinson Miller	6 Dec. 1836	North Carolina 74
25	Augustus J. Bowie	9 Feb. 1837	Razeé Independence
	Richard W. Leecock	do. do.	Schooner Grampus
	Chas. F. B. Guillou	do. do.	Waiting orders
	John L. Fox	do. do.	Waiting orders
	John S. Messersmith	do. do.	Marine Hospital, Washing'n
30	John J. Abernethy	do. do.	Navy Yard, New-York

PURSERS, in Number 44.

	NAME.	Date of pres't Commission.	Duty or Station.
	Clement S. Huntt	25 April, 1812	Navy Yard, Philadelphia
	Samuel Hambleton	do. do.	Waiting orders
	Francis A. Thornton	do. do.	Leave of absence
	James M. Halsey	do. do.	Navy Yard, New-York
5	Edward Fitzgerald	do. do.	Receiving ship, Norfolk
	Samuel P. Todd	1 Mar. 1813	Waiting orders
	James H. Clark	24 July, do.	Waiting orders
	Joseph Wilson	do. do.	North Carolina 74
	William Sinclair	26 Mar. 1814	Waiting orders
10	John N. Todd	1 Mar. 1815	Navy Yard, Boston
	Joseph H. Terry	6 June do.	Frigate Brandywine

PURSERS, in Number 44.

	NAME.	Date of pres't Commission.	Duty or Station.
	Thomas Breese	8 July, 1815	Independence
	John DeBree	29 Dec. 1817	Frigate Constellation
	Charles O. Handy	do. do.	Receiving ship, New-York
15	Silas Butler	do. do.	Furlough
	Edward N. Cox	2 Mar. 1820	Special Agent in the Pacific
	John N. Hambleton	26 May, 1824	Frigate Constitution
	Garret R. Barry	3 Mar. 1825	Leave of absence
	D. McF. Thornton	do. do.	Sloop John Adams
20	Josiah Colston	28 May, do.	Waiting orders
	Dudley Walker	21 Aug. 1826	Frigate United States
	McKean Buchanan	do. do.	Navy Yard, Pensacola
	Henry Etting	7 Nov. do.	Baltimore Station
	James Brooks	7 Jan. 1828	Sloop Vandalia
25	Grenville C. Cooper	11 Mar. 1829	Navy Yard, Washington
	Francis B. Stockton	do. do.	Waiting orders
	Francis G. McCauley	27 May, do.	Waiting orders
	William A. Slacum	8 June, do.	Leave of absence
	Nathaniel Wilson	6 Oct. do.	Sloop Concord
30	Benjamin J. Cahoone	12 Nov. 1830	Navy Yard, Portsm'th, N. H.
	Sterett Ramsay	18 Nov. do.	Sloop Natchez
	Edward T. Dunn	21 Feb. 1831	Frigate Macedonian
	John A. Bates	2 Mar. do.	Waiting orders
	Andrew J. Watson	1 May, do.	Sloop Fairfield
35	Peyton A. Southall	23 Mar. 1832	Sloop Boston
	And'w McD. Jackson	33 May, do.	Navy Yard, Norfolk
	Wm. P. Zantzinger	25 June, 1832	Waiting orders
	Wm. A. Bloodgood	2 May, 1834	Sloop Erie
	D. Fauntleroy	7 July, do.	Leave of absence
40	Tho. Marston Taylor	3 Nov. do.	Schooner Grampus
	Geo. May (acting)	9 Aug. 1836	
	A. E. Watson (acting)	31 Aug. do.	Brig Dolphin
	Jos. Bryan (acting)	1 Sept. do.	Waiting orders
44	Sam. Forrest (acting)	8 Oct. do.	Under orders to Sch'r Boxer

CHAPLAINS, in Number 10.

	NAME.	Date of Commission.	Duty or station.
	James Everett	28 Dec. 1818	Frigate Constitution
	Addison Searle	27 April, 1820	Sloop Erie
	John W. Grier	3 Mar. 1825	Philadelphia station
	Charles S. Stewart	1 Nov. do.	Navy Yard, New-York
5	William Ryland	23 May, 1829	Navy Yard, Washington
	Timothy J. Harrison	2 Oct. do.	North Carolina 74
	Walter Colton	6 Nov. 1830	Frigate Macedonian
	George Jones	20 April, 1833	Navy Yard, Norfolk
	Thomas R. Lambert	31 Dec. do.	Frigate United States
10	James Wiltbank	25 Feb. 1836	Waiting orders

PASSED MIDSHIPMEN, in Number 155.

	NAME.	Date of pres't Commission.	Duty or Station.
	Cicero Price	28 April, 1832	Schooner Boxer
	Alberto Griffith	do. do.	Schr. Jersey, on coast survey
	J. R. Goldsborough	do. do.	Leave of absence
	Chas. S. Boggs	do. do.	North Carolina 74
5	Augustus H. Kilty	do. do.	Sloop Fairfield
	Thomas A. Mull	do. do.	Rec'g Ship, New-York
	William Chandler	do. do.	Schooner Grampus
	George N. Hawkins	do. do.	Leave of absence
	John A. Russ	do. do.	Sloop Fairfield
10	Theo. P. Green	do. do.	Razeé Independence
	John R. Tucker	do. do.	Sloop Erie
	1833.		
	Thomas J. Page	10 June 1833	On coast surv'y (asst. to Mr.
	George Minor	do. do.	Leave of absence [Hassler)
	Percival Drayton	do. do.	Frigate Constitution
15	Wm. C. Griffin	do. do.	Sloop John Adams
	Oliver Tod	do. do.	Coast sur., Schr. Experiment
	Robert F. Pinkney	do. do.	Waiting orders
	Thomas R. Rootes	do. do.	Sloop Peacock
	Edw. M. Yard	do. do.	Frigate Brandywine
20	J. T. McLaughlin	do. do.	With the army in Florida
	James M. Gillis	do. do.	Ass't in charge of Chronom'rs
	Alex. Gibson	do. do.	Waiting orders
	Wm. S. Young	do. do.	On duty with Lieut. Wilkes
	Wm. W. Bleecker	do. do.	Navy Yard, New-York
25	Joseph F. Green	do. do.	Leave of absence
	Algernon S. Worth	do. do.	Asst'g Prof'r Norfolk School
	Zach. Holland	do. do.	Rec'g vessel, Philadelphia
	John Decamp	do. do.	Frigate Constellation
	Bushrod W. Hunter	do. do.	Frigate Constitution
30	Wm. C. Spencer.	do. do.	Under arrest
	Wm. I. H. Robertson	do. do.	Frigate United States
	M. G. L. Claiborne	do. do.	Barque Consort
	Chas. W. Pickering	do. do.	Navy Yard, Boston
	Overton Carr	do. do.	On duty with Lieut. Wilkes
35	Wm. B. Ludlow	do. do.	Frigate Brandywine
	Luther Stoddard	do. do.	Frigate Brandywine
	Wm. M. Walker	do. do.	Sloop Vandalia
	Francis Bartlett	do. do.	Leave of absence
	George R. Gray	do. do.	Sloop St. Louis
40	John Weems	do. do.	Schooner Enterprise
	Chas. S. Ridgely	do. do.	Sloop Natchez
	Robt. E. Johnson	do. do.	Rec'g vessel, Philadelphia
	George McCreery	do. do.	Sloop Fairfield
	John A. Winslow	do. do.	Sloop Erie
45	Benj. More Dove	do. do.	Barque Pioneer
	James R. Sully	do. do.	North Carolina 74
	Bernard J. Moeller	do. do.	Coast sur., Schr. Experiment

PASSED MIDSHIPMEN, in Number 155.

	NAME.	Date of pres't Commission.		Duty or Station.
	Ferdinand Piper	10 June	1833	Rendezvous, Philadelphia
	Henry Walke	do.	do.	North Carolina 74
50	John J. White	do.	do.	Frigate Brandywine
	1834.			
	Thornton A. Jenkins	14 June	1834	On coast survey, (ass't to Mr.
	Joseph C. Walsh	do.	do.	Waiting orders [Hassler)
	Augustin W. Prevost	do.	do.	Schooner Boxer
	Franklin Clinton	do.	do.	Schr. Jersey, on coast survey
55	James K. Bowie	do.	do.	Frigate Constellation
	John Rodgers	do.	do.	Brig Dolphin
	John B. Marchand	do.	do.	Sloop John Adams
	Wm. Rogers Taylor	do.	do.	Schooner Enterprise
	H. J. Hartstene	do.	do.	Waiting orders
60	Lloyd J. Bryan	do.	do.	Frigate Constellation
	Ben. F. Sands	do.	do.	On coast survey, (ass't to Mr.
	Henry French	do.	do.	Rec'g Ship, Boston [Hassler)
	William Leigh	do.	do.	Sloop Peacock
	Samuel Larkin, Jr.	do.	do.	Razeé Independence
65	Henry S. Stellwagen	do.	do.	Frigate United States
	James L. Henderson	do.	do.	North Carolina 74
	Daniel B. Ridgely	do.	do.	Leave of absence
	John L. Ring	do.	do.	Schr. Jersey, on coast survey
	Henry J. Paul	do.	do.	Leave of absence
70	Robert Emmet Hooe	do.	do.	Waiting orders
	James M. Lockert	do.	do.	Schooner Grampus
	William T. Muse	do.	do.	Frigate Constitution
	William H. Brown	do.	do.	North Carolina 74
	Chas. Steedman	do.	do.	Frigate Constitution
75	Wm. Lewis Herndon	do.	do.	Sloop Fairfield
	John P. Parker	do.	do.	Rendezvous, Boston
	John F. Borden	do.	do.	Frigate Constellation
	James Alden, Jr.	do.	do.	Furlough
	Augustus L. Case	do.	do.	Barque Pioneer
80	Roger Perry	do.	do.	Frigate Constellation
	Wm. S. Ringgold	do.	do.	Frigate Constitution
	John T. Williams	do.	do.	Waiting orders
	Joseph W. Revere	do.	do.	Frigate Constitution
	Alex. M. Pennock	do.	do.	Leave of absence
85	B. S. B. Darlington	do.	do.	Schr. Enterprise
	George F. Emmons	do.	do.	Barque Consort
	Edward Middleton	do.	do.	Frigate Constitution
	Montgomery Lewis	do.	do.	Frigate Constitution
	George M. White	do.	do.	Sloop Concord
90	Chas. E. L. Griffin	do.	do.	Brig Dolphin
	Wm. S. Swann.	do.	do.	Leave of absence
	Thomas T. Hunter	do.	do.	Waiting orders
	Albert A. Holcomb	do.	do.	Coast survey, Schr. Jersey
	Gustavus H. Scott	do.	do.	Leave of absence

PASSED MIDSHIPMEN, in Number 155.

	NAME.	Date of pres't Commission.	Duty or Station.
95	Richard Forrest	14 June, 1834	On duty with Lieut. Wilkes
	Levin Handy	do. do.	Coast survey, Schr. Jersey
	David McDougal	do. do.	Sloop Natchez
	Charles F. McIntosh	do. do.	North Carolina 74
	James W. Cook	do. do.	Frigate Constitution
100	C. F. M. Spotswood	do. do.	Frigate Constellation
	Henry C. Flagg	do. do.	Schr. Experiment, coast sur.
	Joseph Moorehead	do. do.	Brig Dolphin
	Daniel F. Dulany	do. do.	Frigate United States
	George L. Selden	do. do.	Sloop John Adams
105	Wm. H. Ball	do. do.	Coast survey, Schr. Jersey
	Elie W. Stull	do. do.	Waiting orders
	John F. Mercer	do. do.	Coast sur., Schr. Experiment
	Steph. W. Wilkinson	do. do.	Waiting orders
	James E. Brown	do. do.	Sloop John Adams
110	Charles C. Barton	do. do.	At the asylum, Philadelphia
	John J. B. Walbach	do. do.	Frigate Constellation
	Richard W. Meade	do. do.	Schr. Jersey, on coast survey
	1835.		
	Oliver H. Perry	3 July, 1835	Furlough
	Charles W. Morris	do. do.	Razeé Independence
115	Joshua Humphreys	do. do.	Frigate United States
	Richard Bache, Jr.	do. do.	Leave of absence
	Francis E. Barry	do. do.	Frigate United States
	Joseph A. Underwood	do. do.	Leave of absence
	John B. Dale	do. do.	Barque Consort
120	Stephen Decatur	do. do.	Navy Yard, Boston
	William L. Maury	do. do.	Waiting orders
	David D. Porter	do. do.	Coast survey, Schr. Jersey
	John J. Almy	do. do.	Coast sur., Schr. Experiment
	Edw. C. Bowers	do. do.	Frigate Constellation
125	Montfort S. Stokes	do. do.	Razeé Independence
	Nathaniel G. Bay	do. do.	Razeé Independence
	Otway H. Berryman	do. do.	Schr. Jersey, coast survey
	Thomas A. Budd	do. do.	Schr. Experiment, coast sur.
	Andrew F. V. Gray	do. do.	Schooner Grampus
130	George J. Wyche	do. do.	Furlough
	Edmund Jenkins	do. do.	Leave of absence
	T. A. M. Craven	do. do.	Coast survey (ass't to Mr.
	Dominick Lynch, Jr.	do. do.	Leave of absence [Hassler)
	Francis B. Renshaw	do. do.	West India Squadron
135	Addison R. Taliaferro	do. do.	Waiting orders
	Horace N. Harrison	do. do.	Leave of absence
	James H. North	do. do.	Store ship Relief
	Robert B. Pegram	do. do.	Leave of absence
	Edward C. Ward	do. do.	Waiting orders
140	Richard C. Cogdell	do do.	Sloop Fairfield
	Matthew S. Pitcher	do. do.	Waiting orders

PASSED MIDSHIPMEN, in Number 155.

	NAME.	Date of pres't Commission.	Duty or Station.
	James Anderson	3 July, 1835	Frigate Constellation
	Edwin J. DeHaven	do. do.	Rec'g vessel, Baltimore
	Charles Thomas	do. do.	Frigate United States
	1836.		
145	Richard L. Tilghman	4 June, 1836	Razeé Independence
	James H. Strong	do. do.	Razeé Independence
	J. Madison Frailey	do. do.	Navy Yard, Philadelphia
	Carlisle P. Patterson	do. do.	Leave of absence
	William Pope	do. do.	Waiting orders
150	James L. Heap	do. do.	Mediterranean Squadron
	George R. Carroll	do. do.	Rec'g ship, Baltimore
	Augustus S. Baldwin	do. do.	Navy Yard, New-York
	Edmund T. Shubrick	do. do.	Barque Consort
	Stephen Dod	do. do.	Brig Dolphin
155	Wm. B. Whiting	do. do.	Schr. Experiment, coast sur.

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	A.		
	John G. Anthony	1 July, 1830	Sloop Natchez
	Benj. Frank Anderson	3 Mar. 1831	Leave of absence
	Wm. M. E. Adams	7 June, do.	Naval School, Norfolk
	Joseph H. Adams	8 Dec. do.	Naval School, Norfolk
5	Latham D. Avery	19 Dec. do.	Frigate Brandywine
	James F. Armstrong	7 Mar. 1832	Sloop Boston
	William H. Adams	27 April, do.	Sloop St. Louis
	Edward C. Anderson	25 Nov. 1834	Frigate Constitution
	Francis Alexander	27 May, 1835	Sloop Vandalia
10	John Quincy Adams	3 July, do.	Leave of absence
	*Richard Allison	9 June, 1836	Leave of absence
	*Daniel Ammen	7 July, do.	Store ship Relief
	B.		
	Eugene Boyle	10 May, 1831	Leave of absence
	Thomas M. Brasher	6 June, do.	Naval School, New-York
15	Simon F. Blunt	7 Sept. do.	Sloop John Adams
	Theodore B. Barrett	8 May, 1832	Sloop Concord
	Frederick A. Bacon	25 May, do.	Schooner Shark
	Wm. B. Beverley	9 June, do.	Frigate Constellation
	Francis E. Baker	17 July, do.	North Carolina 74
20	Washington A. Bartlett	22 Jan. 1833	Frigate Brandywine
	William G. Benham	26 Feb. do.	Sloop Peacock
	John W. Bryce	2 Mar. do.	Mediterranean Squadron

☞ Those Midshipmen whose names are marked with an asterisk [*] have not yet received their Warrants.

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	Robert Burts	31 May, do.	Leave of absence
	James S. Biddle	18 Oct. do.	North Carolina 74
25	*Wm L. Blanton	2 Jan. 1834	Frigate Brandywine
	Nathan Barnes, Jr.	22 Feb. do.	Barque Pioneer
	James M. Bankhead	28 Feb. do.	Sloop Fairfield
	Isaac N. Brown	15 Mar. do.	Sloop Vandalia
	*Robert M. Bowland	do. do.	North Carolina 74
30	*Samuel C. Barney	27 June, 1835	Waiting orders
	Joseph N. Barney	30 June, do.	Leave of absence
	*James Lawrence Blair	8 Jan. 1836	Frigate Macedonian
	*Wm. Elias Boudinot	1 Feb. do.	Frigate Constellation
	*John Brooks	2 May, do.	North Carolina 74
35	*John Hogan Brown	1 July, do.	West India Squadron
	*Silas Bent	do. do.	Frigate Constellation
	Edw. Fitzgerald Beale	14 Dec. 1836	Razeé Independence
	John Bishop	18 Mar. 1837	Waiting orders
	Courtlandt Benham C.	31 do. do.	
40	D. Ross Crawford	9 Dec. 1831	Naval School, Norfolk
	John Carroll	13 Dec. 1831	Naval School, Norfolk
	*William Craney	11 Jan. 1832	Frigate United States
	*Henry Logan Chipman	14 do. do.	Mediterranean Squadron
	George Colvocoressis	21 Feb. do.	Naval School, Norfolk
45	Albert G. Clary	8 May, do.	Razeé Independence
	Thomas W. Cumming	19 do. do.	Navy Yard, Philadelphia
	George W. Chapman	20 Sept. do.	Sloop Peacock
	John Contee	27 Oct. do.	Leave of absence
	Henry Cadwallader	13 Dec. 1833	Sloop Peacock
50	Wm. H. Carns	31 do. do.	Frigate United States
	Johnston B. Carter	do. do.	Sloop John Adams
	Napoleon Collins	2 Jan. 1834	Sloop Natchez
	Charles M. Collier	25 Nov. do.	Waiting orders
	*Alexander H. Cass	21 July 1835	Frigate United States
55	Wm. Mackay Caldwell	10 Oct. do.	Sloop Concord
	*George M. Comegys	27 Feb. 1836	Sloop Boston
	*Henry A. Clemson	9 June, do.	Razeé Independence
	*Thomas M. Crossan D.	1 July, do.	North Carolina 74
	Alonzo B. Davis	25 April, 1831	Naval School, New-York
60	James A. Doyle	4 Jan. 1832	Sloop St. Louis
	William S. Drayton	16 July, do.	Sloop Peacock
	*George W. Doty	4 Jan. 1833	Frigate Brandywine
	*Jesse Elliot Duncan	9 July, do.	Mediterranean Squadron
	Edward Donaldson	21 July, 1835	Leave of absence
65	*Charles Deas	15 Oct. do.	North Carolina 74
	*John P. Decatur	31 Aug. 1836	Razeé Independence
	John K. Duer	28 Dec. do.	Frigate Macedonian
	Wm. Finch DeJongh	11 Mar. 1837	West India Squadron

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.		Duty or Station.
	E.			
	*Henry Eld, Jr.	1 Jan.	1832	Leave of absence
	F.			
70	James I. Forbes	30 Aug.	1831	Schooner Enterprise
	Charles E. Flemming	15 Jan.	1835	Frigate Constitution
	G.			
	Wm. Ross Gardner	29 Dec.	1831	Naval School, New-York
	Hunn Gansevoort	8 May,	1832	Sloop Fairfield
	Thomas O. Glascock	17 July,	do.	Waiting orders
75	Washing'n Gwathmey	21 do.	do.	Razeé Independence
	Wm. P. Gamble	10 Oct.	do.	Frigate Brandywine
	Gough W. Grant	30 May,	1833	Schooner Grampus
	*John Julius Guthrie	26 Feb.	1834	Sloop John Adams
	Benj. Stoddert Gantt	16 June,	do.	Razeé Independence
80	Joseph Gold, Jr.	1 July,	1836	North Carolina 74
	*Hezekiah M. Granger	2 Aug.	do.	Exploring Expedition
	James M. Green	16 Dec.	1836	Not yet accepted
	H.			
	Wm. D. Hurst	2 Feb.	1829	Naval School, New-York
	Richard M. Harvey	24 July,	1830	Naval School, Norfolk
85	Charles Hunter	25 April,	1831	Naval School, New-York
	*Francis P. Hoban	28 do.	do.	Sloop St. Louis
	John Hall	11 Jan.	1832	Naval School, New-York
	Montgomery Hunt, Jr.	17 do.	do.	Frigate United States
	George W. Harrison	20 do.	do.	Naval School, New-York
90	Francis S. Haggerty	17 Feb.	do.	Frigate Constitution
	Edward S. Hutter	24 do.	do.	Sloop Peacock
	Daniel D. Henrie	4 Jan.	1833	Frigate Brandywine
	John Cassin Henry	6 Mar.	do.	Razeé Independence
	*James L. Hannegan	2 Jan.	1834	North Carolina 74
95	Abram Harrel	4 do.	do.	North Carolina 74
	Charles R. Howard	28 May,	do.	Sloop John Adams
	*Thomas B. Huger	5 Mar.	1835	North Carolina 74
	John Vila Hixon	29 June,	do.	Leave of absence
	*Ben. F. B. Hunter	20 Aug.	do.	Sloop Vandalia
100	*Edward Higgins	23 Jan.	1836	North Carolina 74
	*J. Cumming Howell	9 June,	do.	Leave of absence
	I.			
	*R. Delancy Izard	7 Nov.	1834	Schr. Enterprise
	J.			
	William A. Jones	13 July	1831	Naval School, Norfolk
	James D. Johnston	30 June	1832	Leave of absence
105	A. Hubley Jenkins	25 Nov.	1834	Frigate Constitution
	*C. ApRoger Jones	18 June,	1836	Frigate Macedonian
	K.			
	Samuel R. Knox	1 April,	1828	Naval School, New-York
	Edmund C. Kennedy	17 Sept.	1830	Naval School, New-York
	*T. Lowndes Kinloch	1 July,	1836	North Carolina 74

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
110	Joel Kinnard L.	10 Mar. 1837	Not yet accepted
	Henry H. Lewis	1 May, 1828	Naval School, Norfolk
	Richard L. Love	7 Sep. 1830	Naval School, Norfolk
	James B. Lewis	31 Mar. 1831	Naval School, Norfolk
	Richard H. Lowndes	25 June, do.	Naval School, Norfolk
115	Edmund Lanier	9 July, do.	Naval School, Norfolk
	Francis Lowry	3 Aug. do.	Frigate Brandywine
	Wm. Edgar LeRoy	11 Jan. 1832	Brig Dolphin
	Robert Poinsett Lovell	1 May, 1833	North Carolina 74
	*Samuel B. Lee M.	28 Jan. 1825	Leave of absence
120	John M. Mason	31 Mar. 1831	Naval School, Norfolk
	Allen McLane	25 April, do.	Frigate United States
	William May	2 May, do.	Naval School, Norfolk
	Peter Umstead Murphy	12 do. do.	Waiting orders
	John Mooney	13 Dec. do.	Naval School, Norfolk
125	James McCormick	24 do. do.	Naval School, New-York
	Matthias Marine	3 Jan. 1832	Sloop John Adams
	Thomas M. Mix	6 do. do.	Sloop Concord
	*J. R. Madison Mullany	7 do. do.	Frigate United States
	Lafayette Maynard	4 Feb. do.	Waiting orders
130	William P. McArthur	11 do. do.	Frigate Brandywine
	John N. Maffit	25 do. do.	Frigate Constellation
	James D. Morrison	8 Mar. do.	Leave of absence
	Wilson R. McKinney	20 Mar. 1834	Sloop St. Louis
	J. Fenner Marrast	29 do. do.	Frigate Constellation
135	Wm. H. Macomb	10 April, do.	Leave of absence
	*Louis McLane	5 Mar. 1835	Sloop Peacock
	Louis Eugene Musson	11 do. do.	Frigate Constellation
	C. Shaler McDonough	8 April, do.	Frigate United States
	*Alexander Murray	22 Aug. do.	Frigate Constellation
140	*Benjamin Morgan	2 Nov. do.	Sloop St. Louis
	*Francis Key Murray	29 April, 1836	North Carolina 74
	*William B. Muse	1 July, do.	North Carolina 74
	*Isaac N. Morris	7 do. do.	Razée Independence
	*V. Rensselaer Morgan	8 Dec. do.	West India Squadron
145	Archibald McRae N.	26 Jan. 1837	Waiting orders
	John S. Neville	2 May, 1832	Sloop Fairfield
	William E. Newton	24 Sep. do.	Receiving ship, New-York
	Benj. Romaine Nichols	8 July, 1833	Frigate Brandywine
	Joseph Norvell	13 Jan. 1834	Frigate Brandywine
150	*C. St. George Noland	16 June, do.	Frigate Brandywine
	Edw. Tattnal Nichols O.	14 Dec. 1836	Exploring Expedition
	Frederick Oakes	8 May, 1832	Receiving ship, New-York
	James O'Shannessy	9 July, 1833	Sloop Concord

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	P.		
	*Robert Patton, Jr.	2 Feb. 1829	Attached to the W. I. Squad.
155	James L. Parker	6 June, 1831	Frigate Brandywine
	Carter B. Poindexter	6 Nov. do.	Naval School, New-York
	Enoch G. Parrot	10 Dec. do.	Naval School, New-York
	William Ross Postell	31 do. do.	Naval School, Norfolk
	Ferdinand Pepin	13 April, 1832	Leave of absence
160	Wm. Albert Parker	3 July, do.	Razeé Independence
	William L. Parkinson	29 Sep. do.	Schooner Grampus
	Samuel Pearce	30 Mar. 1833	Frigate Brandywine
	*Jn. Smith Patterson	18 April, do.	Schooner Boxer
	Charles H. Piper	7 Nov. do.	Frigate Brandywine
165	T. Kosciusko Perlee	12 Feb. 1834	Receiving ship New-York
	*W. C. Bolton S. Porter	29 June, 1835	Sloop John Adams
	Matthew C. Perry	1 July, do.	Razeé Independence
	*George Henry Preble	10 Oct. do.	Frigate United States
	T. Harmon Patterson	5 April, 1836	Navy Yard, Washington
170	Hambleton F. Porter	12 do. do.	Frigate United States
	John Henry Parker	30 Dec. do.	Waiting orders
	Foxhall A. Parker	11 Mar. 1837	Waiting orders
	R.		
	George W. Randolph	31 Mar. 1831	Naval School, Norfolk
	James W. E. Reid	26 Sept. do.	Naval School, Norfolk
175	William Reynolds	17 Nov. do.	Naval School, Norfolk
	W. B. Renshaw	22 Dec. do.	Naval School, New-York
	Washington Reid	do. do.	Naval School, New-York
	William Ronckendorff	17 Feb. 1832	Frigate Constitution
	Charles Robinson	1 May, do.	Schooner Boxer
180	Charles Richardson	19 do. do.	Sloop Peacock
	*Henry P. Robertson	28 June, do.	Leave of absence
	James Withers Read	30 May, 1833	Frigate Brandywine
	James Riddle, Jr.	31 do. do.	Razeé Independence
	John B. Randolph	11 June, do.	Leave of absence
185	C. R. P. Rodgers	5 Oct. do.	Sloop Fairfield
	E. Edmund Rodgers	25 Nov. 1834	Frigate Constitution
	*John Rutledge	9 April, 1835	Sloop Boston
	*Robert B. Riell	2 Sept. do.	Frigate Brandywine
	James S. Ridgely	11 do. do.	North Carolina 74
190	Geo. W. Rodgers	30 April, 1836	Frigate Constellation
	*James W. Ripley	5 Oct. do.	Razeé Independence
	*Madison Rush	15 do. do.	North Carolina 74
	Henry Rolando	28 Dec. do.	Sloop Fairfield
	Chas. Oscar Ritchie	18 Jan. 1837	Waiting orders
195	Henry Rodgers	11 Mar. do.	Sloop Fairfield
	S.		
	Lewis C. Sartori	2 Feb. 1829	Leave of absence
	John H. Sherburne	5 Oct. do.	Naval School, Norfolk
	George T. Sinclair	23 April, 1831	Navy Yard, Norfolk

MIDSHIPMEN, in Number 259·—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	Wm. Scandrett Smith	25 April, 1831	Naval School, Norfolk
200	Henry Skipwith	25 June, do.	Sloop Natchez
	Benjamin F. Shattuck	do. do.	Naval School, New-York
	Fabius Stanly	20 Dec. do.	Naval School, Norfolk
	Woodhull S. Schenck	30 do. do.	Naval School, New-York
	Joseph P. Sanford	11 Feb. 1832	Barque Pioneer
205	Roger N. Stembel	27 Mar. do.	Sloop Vandalia
	Wm. Taylor Smith	17 July, do.	Sloop Boston
	Samuel J. Shipley	14 Jan. 1834	Sloop Erie
	*James H. H.Sands	19 April, do.	Frigate Constellation
	Samuel Smith	16 June, do.	Sloop John Adams
210	*Charles R. Smith	2 Sept. 1835	Frigate Brandywine
	*Wilmer Shields	19 Oct. do.	Sloop Concord
	*Camillus Saunders	8 Jan. 1836	Sloop Natchez
	*Charles Sinkler	24 Mar. do.	North Carolina 74
	*Alexander Sevier	18 June do.	Not yet accepted
215	*Charles R. Slade	1 July, do.	Brig Dolphin
	Thos. Holdup Stevens T.	14 Dec. do.	Razée Independence
	George M. Totten	5 May, 1831	Naval School, New-York
	Richard S. Trapier	21 Dec. do.	Naval School, Norfolk
	Strong B. Thompson	13 April, 1832	Razée Independence
230	Richard M. Tillotson	29 May, 1833	Navy Yard, New-York
	*S. Decatur Trenchard	23 Oct. 1834	Schooner Grampus
	Joshua D. Todd	26 June, 1835	Frigate United States
	*Howard Tillotson	2 Sept. do.	Frigate United States
	John S. Taylor	14 Dec. 1836	North Carolina 74
225	John Laurens Toomer	3 Feb. 1837	Sloop Fairfield
	Egbert Thompson V.	13 Mar. do.	Not yet accepted
	Cornelius Vanalstine	27 Feb. 1833	Schooner Boxer
	*P. Cortlandt V. Wyck	4 Dec. 1834	Navy Yard, New-York
	*Stephen D. Vallette	8 Dec. 1835	Frigate United States
230	*W. Van Rensselaer W.	1 Nov. 1836	North Carolina 74
	Richard Wainwright	11 May, 1831	Naval School, Norfolk
	Lewis Morris Wilkins	13 June, do.	Naval School, New-York
	Hen. Tingey Wingate	13 Dec. do.	Naval School, New-York
	John Brooks Weed	do. do.	Sloop Concord
235	George Wickham	5 Jan. 1832	Leave of absence
	*James C. Williamson	7 do. do.	West India Squadron
	Maxwell Woodhull	4 June, do.	Sloop Vandalia
	Melancton B. Woolsey	24 Sept. do.	Frigate United States
	Henry Waddell	29 do. do.	Naval School, Norfolk
240	W. Anderson Wayne	27 April, 1833	Leave of absence
	Fras. Winslow	8 July, do.	Sloop Erie
	Albert Smith Whittier	do do.	Frigate United States

MIDSHIPMEN, in Number 259.—Alphabetically arranged.

	NAME.	Time of entering—date of Warrant.		Duty or Station.
	Wm. M. Wallace	3 Dec.	1833	Sloop Erie
	George Wells	18 do.	do.	Sloop Erie
245	Reed Werden	9 Jan.	1834	Sloop Erie
	John L. Worden	10 do.	do.	Sloop Erie
	Henry A. Wise	8 Feb.	do.	Sloop Erie
	Rufus Stanley Wey	5 April.	do.	Leave of absence
	M. Carrington Watkins	2 May	do.	Frigate Constellation
250	*Benj. T. Wilson	15 Oct.	do.	Schooner Boxer
	Charles Wager	2 April	1835	Frigate Constitution
	*Edw'd Lloyd Winder	29 April,	1836	North Carolina 74
	*Andrew Weir	6 July	do.	Sloop Fairfield
	Wm. A. Whitfield	16 Dec.	1836	Sloop Fairfield
255	Israel C. Wait	28 do.	do.	Waiting orders
	Wm. S. Weed	1 Mar.	1837	Waiting orders
	Chas. Weston	11 do.	do.	Waiting orders
	Robert Harris Wyman	do.	do.	Razeé Independence
	Y.			
259	Isaac S. K. You	2 July,	1835	Sloop Fairfield

SAILINGMASTERS, in Number 27.

	NAME.	Time of entering—date of Warrant.		Duty or Station.
	Salvadore Catalano	9 Aug.	1809	Navy Yard, Washington
	Augustus Ford	28 Mar.	1810	Leave of absence
	A. B. Bloodgood	25 June,	1812	New-York station
	Robert Knox	20 July,	do.	Ordinary, Boston
5	James B. Potts	24 do.	do.	Navy Yard, Gosport
	William Vaughan	22 Aug.	do.	Waiting orders
	Marmaduke Dove	29 do.	do.	Navy Yard, Washington
	Cornelius Bennett	9 Dec.	do.	Waiting orders
	Charles W. Waldo	10 Mar.	1813	Navy Yard, Boston
10	John Clough	3 July,	do.	Leave of absence
	F. H. Ellison	do.	do.	Navy Yard, New-York
	Francis Mallaby	do.	do.	Sackett's Harbor
	Samuel C. Hixon	30 April,	1814	Navy Yard, Boston
	James Ferguson	27 May,	do.	Navy Yard, Philadelphia
15	Robert S. Tatem	21 July,	do.	Rec'g vessel, Philadelphia
	William Miller	23 Jan.	1815	Philadelphia station
	Nahum Warren	6 Feb.	do.	Navy Yard, Pensacola
	Henry Worthington	2 May,	do.	Receiving ship, Norfolk
	John Carlton	4 July,	do.	Leave of absence
20	Alexander Cunningham	15 Nov.	do.	Leave of absence
	John Robinson	27 do.	do.	Leave of absence
	James Tewksbury	14 Dec.	do.	Philadelphia station
	John Quin	1 Nov.	1816	Waiting orders

SAILINGMASTERS, in Number 27.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	N. A. Prentiss	22 Jan. 1823	Navy Yard, Boston
25	Jacob Mull	5 Aug. 1825	Navy Yard, Portsm'th, N. H.
	Frederick W. Moores	19 May 1827	Furlough
27	H. A. F. Young	16 May 1827	Norfolk Yard

Professors of Mathematics, and Teachers at Naval Schools.—9.

	NAME.	When appointed.	Station.
	P. J. Rodriguez		Norfolk
	L. A. Bianchini		do.
	Edward C. Ward		New-York
	T. Morel		do.
5	Duncan Bradford		Boston
	Martin Roche	19 Dec. 1835	Frigate United States
	Bartholomew McGowen	23 Jan. 1835	Sloop Concord
	John H. C. Coffin	do. do.	Sloop Vandalia
9	Joseph T. Huston	7 Sept. do.	North Carolina 74

BOATSWAINS, in Number 21.

	NAME.	Time of entering—date of Warrant.	Duty or Station.
	David Eaton	8 Aug. 1811	Navy Yard, Washington
	James Banks	21 July 1817	Leave of absence
	John Smith	7 Dec. do.	Receiving ship, New-York
	Edward Crocker	16 June 1828	Sloop Erie
5	John Morris	28 Oct. do.	Navy Yard, Portsm'th, N. H.
	L. Gallagher (acting)	15 Nov. do.	New-York station
	Robert H. O'Neal	13 June 1831	Navy Yard, New-York
	William Brown	9 Aug. do.	Navy Yard, Philadelphia
	William Hart	2 Dec. do.	Frigate United States
10	John McNelly	9 April 1833	Navy Yard, Boston
	James Springer	13 Aug. do.	Razeé Independence
	Robert Whittaker	27 Dec. 1834	Frigate Constitution
	Charles Matthews	do. do.	Frigate Constellation
	John Knight (acting)	24 Feb. 1835	Sloop Peacock
15	William Black	30 Mar. do.	Store ship Relief
	William Waters	8 Dec. do.	Waiting orders
	Joshua Bryant (acting)	7 Mar. 1836	Sloop Natchez
	Wm. M. Cooper (act'g)	22 do. do.	Ordinary, Boston
	John Davis (acting)	29 do. do.	Brig Dolphin
20	William Brady (acting)	7 Sept. do.	North Carolina 74
21	Jos. Sanderson (acting)	21 Mar. 1836	Sloop Fairfield

GUNNERS, in Number 25.

	NAME.	Time of entering—date of Warrant.		Duty or Station.
	George Marshall	15 July,	1809	Navy Yard, Norfolk
	John Blight	3 May,	1821	Ellis' island sup. powder mag.
	John R. Covington	1 May,	1824	Navy Yard, Boston
	Asa Curtis	1 Mar.	1825	Navy Yard, Philadelphia
5	William B. Brown	9 Dec.	do.	Leave of absence
	Thomas Ryley	29 Jan.	1827	Frigate Constitution
	Thomas Barry	27 Dec.	do.	Navy Yard, Washington
	Benjamin Towner	7 Feb.	1828	Sick at hospital, Norfolk
	Henry Keeling (acting)	25 Aug.	1829	Sick at hospital, Norfolk
10	Lewis Parker	13 Feb.	1832	Ordinary, Norfolk
	Alexander Stephenson	6 Jan.	do.	North Carolina 74
	Charles Cobb	18 Jan.	1833	Navy Yard, New-York
	Samuel Daggett	26 Feb.	1834	Waiting orders
	David Taggart	18 June,	do.	Sloop John Adams
15	Charles Wade	27 Sept.	do.	Sloop St. Louis
	Alexander Russell	19 Dec.	do.	Schooner Shark
	Archibald S. Lewis	27 do.	do.	Sloop Peacock
	Thos. Robinson (acting)	18 Nov.	1835	Razeé Independence
	Daniel Kelly (acting)	29 Mar.	1836	Schooner Grampus
20	Samuel Allen (acting)	9 May,	do.	Frigate United States
	J. Carpenter (acting)	28 do.	do.	Sloop Boston
	John Myrick (acting)	13 June,	do.	Sloop Natchez
	G. Newman (acting)	6 Sept.	do.	Waiting orders
	A. A. Peterson (acting)	25 Oct.	do.	Store ship, Relief
25	J. W. Pennington (act.)	11 Mar.	1837	Sloop Fairfield

CARPENTERS, in Number 22.

	Richard Thomas	22 Jan.	1814	Frigate United States
	Samuel Philips	24 May,	1821	Navy Yard, New-York
	John Fisher	20 Mar.	1823	Waiting orders
	John A. Dickason	13 Dec.	1825	Ordinary, Boston
5	John Southwick	21 Dec.	1826	Navy Yard, Boston
	William E. Sheffield	11 Nov.	1829	Ordinary, New-York
	Alonzo Jones	18 Nov.	1831	North Carolina 74
	Patrick Dee	9 May,	1832	Navy Yard, Portsm'th, N. H.
	John Green	23 Jan.	1833	Razeé Independence
10	Charles Bordman	23 Aug.	do.	Frigate Brandywine
	Wm. L. Shuttleworth	19 April,	1834	Leave of absence
	Joseph Cox	29 May,	do.	Leave of absence
	Francis Sagee	13 April,	1831	Frigate Constitution
	Wm. Peterson	21 Jan.	1835	Sloop Vandalia
15	David Marples	28 Aug.	do.	Sloop Erie
	Jonas Dibble, (acting)	18 Dec.	do.	Sloop Concord
	Lauchlan McKay, (act.)	16 June	1836	Sloop Natchez
	Daniel Caswell, (act'g)	23 Aug.	do.	Brig Dolphin
	W. M. Laighton, (act.)	29 Sept.	do.	Store ship, Relief
20	Hen. P. Leslie, (acting)	11 Nov.	do.	Navy Yard, Norfolk
	L. R. Townsend, (act.)	31 Dec.	do.	Frigate Macedonian
22	Wm. Jordan, (acting)	21 Mar.	1837	Sloop Fairfield

SAILMAKERS, in Number 22.

	NAME.	Time of entering—date of Warrant.		Duty or Station.
	James R. Childs	8 June,	1822	Frigate Brandywine
	Nathaniel B. Peed	22 Oct.	1823	Sloop Erie
	Benjamin Crow	5 May,	1826	Leave of absence
	Samuel B. Banister	17 July,	do.	Frigate Macedonian
5	Wm. Ryan	18 Sept.	1827	Furlough
	James Davis	4 Nov.	1828	Navy Yard, Boston
	J. G. Gallagher	27 Nov.	1829	Frigate Constellation
	John Beggs	20 Aug.	1830	Sloop Concord
	John Heckle	9 Nov.	1831	Sloop Fairfield
10	Henry Bacon	26 Feb.	1833	Waiting orders
	Thomas J. Boyce	12 Oct.	do.	North Carolina 74
	Richard Van Voorhis	8 Feb.	1834	Navy Yard, New-York
	Samuel V. Hawkins	18 Mar.	do.	Store ship Relief
	William Ward	14 Aug.	1834	Leave of absence
15	Madison Wheeden	19 do.	do.	Sloop Vandalia
	George Thomas	19 Dec.	do.	Sloop John Adams
	N. C. L'Hommedieu (a)	16 Feb.	1835	Frigate Constitution
	James Ferguson (act'g)	24 do.	do.	Sloop Peacock
	John Burdine (acting)	4 Mar.	1836	Sloop St. Louis
20	J. C. O. Conner (act'g)	21 May,	do.	Frigate United States
	Wm. Adams (acting)	13 July,	do.	Sloop Boston
22	Isaac Whitney (acting)	10 Jan.	1837	Razee Independence

MARINE CORPS.

COLONEL COMMANDANT.

NAME.	Brevet Rank.	Duty or Station.
	Col. by brevet.	
Arch'd Henderson	17 Oct. 1830	Co-operating w'h army in Fl.

LIEUTENANT COLONEL.

	Lt. Col. brev't.	
R. D. Wainwright	3 Mar. 1827	Head Quarters

MAJORS, in Number 4.

	Lt. Col. brev'	
Samuel Miller	3 Mar. 1827	Co-operating w'h army in Fl.
Samuel E. Watson	28 Mar. 1830	Portsmouth, N. H. [Mass.
Wm. H. Freeman	20 Feb. 1832	Wait'g orders, Charlestown,
Charles R. Broom	7 Mar. 1834	Washington

CAPTAINS, in Number 13.

		Capts. by bvt.	
	Levi Twiggs	3 Mar. 1825	Commanding comp. A, E. Fl.
	John Harris	do. do.	Waiting orders, Philadelphia
	Thomas A. Linton	18 April, 1827	Under orders to N. Car. 74
	James Edelin	do. do.	Head Quarters
5	Parke G. Howle, Adj. and Insp'r	do. do.	Co-operating w'h army in Fl.
	Elijah J. Weed, Qr'm'r & Major	7 Nov. 1828	Head Quarters
	William Dulany	19 June, 1829	Commanding comp. D, E. Fl.
	Thos. S. English	11 Aug. do.	Razeé Independence
	George W. Walker, Paymaster	3 Mar. 1831	Head Quarters
10	Ward Marston	30 Oct. do.	Waiting orders
	Charles C. Tupper	21 Jan. 1832	Frigate Brandywine
	A. A. Nicholson, Ass't q'r'master	25 July, do.	Philadelphia
13	James McCawley	6 Oct. do.	Waiting orders

FIRST LIEUTENANTS, in Number 19.

	NAME.	Date of pres't Commission.	Duty or Station.
	Captains by Brevet.		
	Benj. Macomber	2 April, 1833	Commanding comp. C, E. Fl.
	A. N. Brevoort	26 Sept. do.	Recruiting service, Phild'a
	Richard Douglas	26 April, 1825	New-York
	Job G. Williams	27 Dec. do.	Philadelphia
5	Alvin Edson	14 Mar. 1829	Commanding comp. F, E. Fl.
	Horatio N. Crabb	23 Feb. 1830	Leave of absence
	Henry B. Tyler	1 April, do.	Leave of absence
	Joseph L. C. Hardy	13 June, do.	Frigate Constitution
	George F. Lindsay	23 Sept. 1831	East Florida
10	Landon N. Carter	7 April, 1832	Gosport, Va.
	John G. Reynolds	17 May, 1833	Alabama
	Francis C. Hall	1 July, 1834	Recruiting, Easton, Pa.
	Thos. L. C. Watkins	do. do.	East Florida
	F. N. Armistead	do. do.	Norfolk, sick
15	George H. Territt	do. do.	East Florida
	William E. Stark	do. do.	East Florida
	Nath'l S. Waldron	25 July, do.	Sloop Vandalia
	William Lang	13 June, 1836	East Florida
19	Jacob Zeilin, Jr.	12 Sept. do.	Sloop Erie

SECOND LIEUTENANTS, in Number 20.

	D. D. Baker	20 Oct. 1832	Sick at Portsmouth, N. H.
	Archibald H. Gillespie	do. do.	North Carolina 74
	G. Washing'n McLean	8 May, 1833	New-York
	Benjamin E. Brooke	8 July, do.	Frigate United States
5	Jabez C. Rich	12 June, 1834	Frigate Constitution
	Thos. Theodore Sloan	17 Oct. do.	Alabama
	Addison Garland	do. do.	Sick at Philadelphia
	John P. Dieterich	do. do.	Under arrest
	Louis F. Whitney	do. do.	East Florida
10	Frederick B. McNiel	do. do.	Sloop Vandalia
	John T. Sprague	do. do.	Emigrating Indians
	Edward Loyd West	do. do.	Leave of absence—sick
	Robert C. Caldwell	do. do.	East Florida
	Lafayette Searcy	30 do. do.	Pensacola, West Florida
15	William L. Young	23 Feb. 1835	East Florida
	Josiah Watson	21 July, do.	East Florida
	Darius C. Powers	21 June, 1836	North Carolina 74
	Henry B. Watson	5 Oct. do.	Head Quarters
	James Brown	28 Dec. do	Waiting orders
20	Thos. A. Brady	3 Feb. 1837	Waiting orders

PERMANENT NAVY AGENTS, in Number 10.

	NAME.	Date of Commission.	Duty or Station.
	James K. Paulding	8 Jan. 1836	New-York
	John Thomas	11 Oct. do.	Baltimore
	John P. Henry	3 Mar. 1833	Savannah
	Daniel D. Brodhead	27 May, 1834	Boston
5	John Laighton	27 April, do.	Portsmouth, N. H.
	Benjamin D. Herriot	4 Oct. 1836	Charleston, S. C.
	Elias Kane	14 July, do.	Washington
	Thomas Eastin	30 May, do.	Pensacola
	Mich. W. Ash	9 Mar. 1837	Philadelphia
10	George Loyall	13 do. do.	Norfolk

TEMPORARY NAVY AGENTS, in Number 3.

Fitch, Brothers & Co.	7 Dec. 1833	Marseilles
Baring, Brothers & Co.		London
Wm. P. Furniss & Co.		St. Thomas

NAVAL STORE KEEPERS, in Number 9.

	Richard H. Ayer	1 May, 1829	Portsmouth, N. H.
	George Bates	1 Dec. 1813	Boston
	Tunis Craven	15 Mar. do.	New-York
	Robert Kennedy		Philadelphia
5	Merit Jones	6 April, 1836	Norfolk
	Cary Selden	20 May, 1826	Washington
	Robert Joyner	20 May, 1829	Pensacola
	Obadiah Rich		Port Mahon
9	Thomas R. Hunter		Rio de Janeiro

CHIEF NAVAL CONSTRUCTOR.

Samuel Humphreys	25 Nov. 1826	Washington

NAVAL CONSTRUCTORS, in Number 5.

	John Floyd		Portsmouth, N. H.
	Josiah Barker		Boston
	Samuel Hartt		New-York
	William Doughty		Washington
5	Francis Grice	7 May, 1817	Norfolk

VESSELS OF WAR OF THE UNITED STATES NAVY.

	NAME.	Rate.	Situation.	Where.
	SHIPS of the LINE.	Guns.		
	Franklin	74	In ordinary	New-York
	Washington	74	do.	New-York
	Columbus	74	do.	Boston
	Ohio	80	do.	New-York
5	North Carolina	80	In commission	Pacific
	Delaware	80	In ordinary	Norfolk
	Alabama	80	On the stocks	Portsmouth, N. H.
	Vermont	80	do.	Boston
	Virginia	80	do.	Boston
	Pennsylvania	120	do.	Philadelphia
11	New-York	80	do.	Norfolk
	Independence, Razeé	54	Preparing for sea	Boston, destin'd for the [coast of Brazil
	FRIGATES, 1st Class.			
	United States	44	In commission	Mediterranean
	Constitution	44	do.	Mediterranean
	Guerriere	44	In ordinary	Norfolk
	Java	44	do.	Norfolk
5	Potomac	44	do.	Norfolk [the U. S.
	Brandywine	44	In commission	Pacific, on her return to
	Hudson	44	In ordinary	New-York
	Santee	44	On the stocks	Portsmouth, N. H.
	Cumberland	44	do.	Boston
10	Sabine	44	do.	New-York
	Savannah	44	do.	New-York
	Raritan	44	do.	Philadelphia
	Columbia	44	Fitting for sea	Norfolk
14	St. Lawrence	44	On the stocks	Norfolk
	FRIGATES, 2d Class.			
	Constellation	36	In commission	West Indies
	Macedonian	36	Fitt'g for ex. exp.	Norfolk
	SLOOPS OF WAR.			
	John Adams	20	In commission	Mediterranean
	Boston	20	do.	West Indies
	Lexington	20	In ordinary	Portsmouth, N. H.
	Vincennes	20	do.	Norfolk
5	Warren	20	do.	Norfolk
	Natchez	20	In commission	West Indies
	Falmouth	20	In ordinary	Norfolk [coast of Br'z'l
	Fairfield	20	Fitting for sea	Norfolk, destin'd for the
	Vandalia	20	In commission	West Indies
10	St. Louis	20	do.	West Indies

VESSELS OF WAR OF THE UNITED STATES NAVY.

NAME.	Rate.	Situation.	Where.
SLOOPS OF WAR.	Guns.		
Concord	20	In commission	West Indies
Erie	18	do.	Coast of Brazil
Ontario	18	In ordinary	New-York
14 Peacock	18	In commission	E. Indies, on her ret'rn [to U. S.
BRIGS.			
Dolphin	10	In commission	Coast of Brazil
Porpoise	10	Fitting for sea	Norfolk
SCHOONERS.			
Grampus	10	In commission	West Indies
Shark	10	do.	Mediterranean
Enterprise	10	do.	E. Indies, on her ret'rn
Boxer	10	do.	Pacific [to U. S.
5 Experiment	4	Surveying	New-York
Fox		Receiving vessel	Baltimore
7 Sea Gull (galliot)		do.	Philadelphia
EXPLORING VESSELS.			
Barque Pioneer		Preparing for sea	Norfolk
Barque Consort		do.	Norfolk
Schooner Pilot		do.	Norfolk
Store ship Relief		do.	Norfolk

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